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No. 1.

HUMAN HORN (CORNU CUTANEUM OF ROKITANSKY).

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By SILAS DURKEE, M.D.

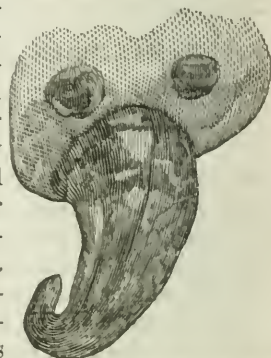
ON the 24th of December, 1864, Dr. Hoffendahl, of this city, gave me a polite invitation to see a patient of his who has had a horny excrescence growing on the right forehead for the past six years. The patient is a female, 92 years of age, and resides in Charlestown. She still retains her mental faculties quite well, and was able to answer with apparent accuracy my inquiries relative to her case. She stated, in substance, that the horny growth commenced as a small, hard pimple, rising just above the adjacent skin, and situated about an inch above the outer portion of the eyebrow. For three or four years it increased very gradually. It has never occasioned much inconvenience, unless when accidentally struck, or brought in contact with the clothing. During the last twelve or fifteen months previously to my seeing it, it grew more rapidly than it had done before.

The old lady was gratified that we had called to see "her horn," of which she was quite proud, and at once removed the linen rag that covered it. It had a broad base, which measured four inches and seven eighths in circumference. The surrounding integument was a little inflamed, and formed a delicate red circle about two lines wide. The excrescence was of a conical shape, and was inclined downwards, like a ram's horn or the beak of a bird. Its length along the upper curve measured three inches and seven eighths. It was easily movable, and was evidently not attached to bone. The inferior border occupied the integument just over the outer portion of the superciliary ridge, and encroached slightly on the eyebrow. For the first half inch from its origin it was soft and pulpy to the touch, consisting, as it did, of an accumulation of concreted sebaceous matter confined in the dilated sac of a sebaceous duct. It bulged out, and served as a sort of cushion or shoulder for the portion above to rest upon. The latter was hard and unyielding under pressure. It was rough, and longitudinally ribbed and marked by several irregular depressions.

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There was one groove or furrow commencing half an inch from the base and running along the upper surface, extended two inches towards the apex, as if an attempt had been made to divide it into two nearly equal parts. It had apparently a fibrous structure, the arrangement of its cells being parallel to its length. It tapered to a blunt point, which was bent downward and backward until it came in contact with the inferior portion one inch from its base. No attempt had ever been made for its removal, because the woman persistently objected.

There were several other horny formations, varying in size, upon the face and skin. None of them had attained more than a line or two above the adjacent skin. The dimensions and relative position of the two largest are represented in the accompanying engraving from a plaster cast which was taken a few days after I saw the case. From long exposure to air and floating dust, they were of a dull brown or nearly black color, while the principal specimen, above described, was of a dirty white. In the early part of May, 1865, the inflammation began to increase, and a poultice composed of the powdered root of *hydrastis Canadensis* was applied for several weeks, when the hard, dense portion of the horny texture was cast off. Dr. Hoffendahl informs me that the poultices changed the surface so as to impart a greenish tint to the color, and now in its dry state the green is still visible. Subsequently, the impacted sebaceous matter enlarged the aperture of the soft follicular sac which constituted the base of the indurated mass—a still higher inflammation set in, followed by ulceration, which spread rapidly in all directions; the walls of the hypertrophied sac were destroyed; the diseased action assumed in all respects an unfavorable character, and the malady is now (December 13th, 1865) doubtless an epithelial cancer, which covers a large portion of the forehead and yields an exceedingly offensive discharge. The poor woman has failed very much during the past few months. She is deaf and blind and helpless, and is a most pitiable object to behold.



She has had two children, both of whom are living—one 75 years old, the other 70, and thus far both are exempt from the malformation in question. Her grandmother had a cutaneous horn in the same locality with the one in the present instance. I was informed that it terminated in a cancer—the woman living, however, to the extreme age of 96 years.

The constituent elements of cornified textures on the human subject have frequently been ascertained by chemical analysis. They consist chiefly of albumen, a small quantity of mucus, phosphate of lime, chloride of sodium and a trace of lactate of soda.

Professor Wilson has collected ninety cases, of which forty-four were females and thirty-three males; of the remainder the sex is not mentioned. Of this number, forty-eight were seated on the head, four on the face, four on the nose, eleven on the thigh, three on the leg and foot, six on the back, five on the glans penis, and nine on the trunk of the body.

The most remarkable case on record is that of a Mexican porter, who had a horn situated on the upper and lateral part of the head, fourteen inches in circumference around its shaft, and divided above that point into three branches.

By the early application of alkaline or common water dressings, these singular alien growths are easily detached from the inner surface of the follicular tumors from which they spring; and by the use of caustics to the sac the further abnormal cell-development can usually be arrested.

ON THE PRACTICAL USES OF THE LARYNGOSCOPE AND THE RHINOSCOPE.

By EPHRAIM CUTTER, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN DIAGNOSIS. *Laryngoscopy.*—Laryngoscopic diagnosis is positive and negative. Negative laryngoscopic diagnosis occurs where the symptoms point to the larynx and no appreciable lesion appears to explain them. Negative evidence, when true, is quite as useful as positive, and sometimes more so. It is valuable by way of exclusion. It directs attention to other than topical causes of disease. It decides questions of interference, whether medicinal or surgical. It is considerably important to know when to treat and when *not* to treat. Physicians should not labor to accomplish unattainable objects. It wastes their time and the patient's resources, and leads to an unpleasant termination of the affair in an *opprobrium medici*.

CASE I.—*A middle-aged Man with Aphonia, caused by no discoverable Lesion in the Throat or Larynx.*—In September, 1865, Dr. Henry I. Bowditch, of Boston, kindly submitted to the writer a stout, dark-complexioned man of 45 years, complaining of aphonia of several months' duration. Unassisted physical exploration revealed no lesion sufficient to explain the difficulty.

On inspection by laryngoscopy, the epiglottis appeared normal in its body, wings, cushion, tip and edges. The arytenoid cartilages and their connecting band were natural. The color, conformation and physical appearances of the walls of the larynx, the vocal cords, and the mucous membrane of the trachea, were also normal. (The idea of normal was gained by previous inspection of healthy larynges.) A negative diagnosis was given, and the attending physician was directed to other invisible causes. Pressure upon the recurrent la-

ryngeal nerve by an aneurism of the arch of the aorta was suggested.

CASE II.—*Supposed Foreign Body in the Larynx of a Child four Years of age; Negative Diagnosis.*—November, 1865. A patient of Dr. W. F. Stevens, of Stoneham, Mass., a boy of four years, had been sick several weeks with severe cold, attended with physical signs of bronchitis, with an unusual rattling and irritation in the throat, and with cough. The symptoms were variable, and yet so persistent and unyielding that the question was raised by the attending physician and parents whether there might not possibly be a foreign body furtively lodged by the child in the larynx. Phonation was perfect at the time of the examination.

By laryngoscopy, the epiglottis and vocal cords, with the glottis, were well made out, and no signs of any foreign body were discovered. The issue has confirmed this diagnosis, which, although *negative*, in this case was far more gratifying than a *positive* one would have been.

CASE III.—*Occasional Choking, Hoarseness and Distress in Throat, associated with a Nervous Temperament; no Physical Lesion.*—August, 1865. Mrs. H. C., Winchester, Mass., head of a family, thin, pale, nervous, aged about 55 years. Complained of severe spells of choking, hoarseness and distress, which had affected her for some years at intervals. The paroxysms lasted for several minutes, seized her at any time of the day, and were more frequent when debilitated by overwork, sickness or unusual fatigue. She has had several severe attacks of pneumonia during her life, and also has enlargement, with functional disturbance of the heart.

Careful and repeated successful laryngoscopic examinations failed to disclose any solution of continuity, or any change in structure, color, size and consistency of the parts about the pharynx, larynx or trachea.

Diagnosis negative in regard to physical lesion, but positive in relation to a disturbance of the nervous forces—to be relieved by supporting treatment.

In *positive diagnosis* by the laryngoscope, some malformation, congenital or acquired, or some lesion of structure, either organic or functional, is brought distinctly to view.

CASE IV.—About one year ago, Mr. W. W. Baker, of Thetford, Vt., came under my observation from the Massachusetts General Hospital, sent by Dr. Bowditch. He was a farmer, of medium stature, light complexion, and feeble appearance. He was breathing through a tracheotomy tube, which had been inserted during fearful paroxysms of dyspnoea by Dr. Crosby, of Hanover, N. H., about nine months before. He was aphonic. Breathed with some difficulty, and with some noisy rattling. Deglutition was somewhat difficult. His nights were sleepless. He had a great deal of pain in the throat. His troubles had existed for about three years. His general health had suffered, and he had become considerably reduced. At the first sit-

ting, the laryngoscope revealed a quadrilateral tumor making a space between the orifice of the œsophagus and the laryngeal opening, involving the anterior and upper half of the gullet and the adjacent posterior part of the larynx, between both arytenoid cartilages. This swelling was about five eighths of an inch square, measured by the eye, smooth, white, glistening. The epiglottis was much folded naturally, and pushed forward from the posterior pharyngeal wall. The whole larynx was much smaller than usual. The antero-posterior diameter was diminished one half, taking an adult man's larynx for a standard. The vocal cords were a milk-and-water white, thinned, atrophied, and destitute of the normal white pearly sheen.

Diagnosis—from the pain and the physical appearances—cancer of the œsophagus, involving the larynx, structurally and mechanically.

Treatment.—All treatment declined; considered a case beyond human aid.

Remarks.—The question may be asked, as you could not cure him, of what use was the laryngoscope in this case? The answer is, that the truth was clearly ascertained. There is a satisfaction, melancholy to be sure, in an accurate diagnosis of a malignant disease. Moreover, without this special investigation, no one could have known the exact state of the disease. The patient was but just alive at last accounts. It should be added, that the above diagnosis was afterwards demonstrated to Dr. Bowditch, who concurred in it from actual inspection.

CASE V.—Aphonia, caused by a pedunculated Cauliflower Excrescence on the Right Vocal Cord.—November, 1865. A boy, 6 years of age. Seen in the office of Drs. Douglass and Richards, the successors of Dr. Horace Green, of New York. Had been aphonic for a year, I think, and had been for six weeks under a course of throat training or education, by Dr. Douglass. The laryngoscope in the writer's hands confirmed the previous laryngoscopic diagnosis of Dr. Douglass, by revealing a polypus seated on the middle of the upper surface of the right vocal cord, of the size of a small five-grain pill, shape globular, its free surface irregularly and minutely bossed, its attached surface connected with a short stalk seated as above. Its color was of a palish white.

CASE VI.—Aphonia, caused by a Growth springing from the upper posterior part of the Larynx, near the left Arytenoid Cartilage.—Seen at the same time and place as Case V. A stout, middle-aged mechanic, aphonic. The laryngoscope revealed a fleshy excrescence, projecting like a knob, one quarter of an inch in diameter and in protuberance. Its free extremity was irregularly broken up into minute projections. Its color was a pale red.

CASE VII.—A T-shaped Polypus on the Left True Vocal Cord, of enormous size and curiously perforated.—Philadelphia Hospital, Blockley, November, 1865. A United States soldier, 50 years of age, born

in Charlestown, Mass., in 1850 fell and received the force of his fall upon the larynx and windpipe. Since that time he has been aphonic. He had been in some army hospital at Washington, and at the close of the war had somehow gravitated into the above locality. The diagnosis coming with him was "rupture of the vocal cords," said to have been pronounced by a board of army surgeons. Laryngoscopy immediately revealed to the writer, and also to Dr. Ludlow and his assistants, the existence of a T-shaped polypus starting from the middle of the upper surface of the left lower thyro-arytenoid band, projecting inwards, where it was joined by another oblong portion exactly at right angles, forming a shape like the letter T. The part corresponding to the bar of the T was apparently of the size of the last joint of the little finger, and occupied all the space in the larynx antero-posteriorly, leaving a considerable margin for both sides. Very curiously, on the thyroid end of the "bar," was a complete perforation vertically, so large that I saw distinctly through it. There were striations parallel to the length of each of the parts of the polypus. Its color was red, like a healthy mucous membrane. A second examination, a few days after, confirmed the first.

CASE VIII.—*Œsophagoscopy; Disease of the Œsophagus, involving the Larynx.*—Mr. O. C., coal and lumber dealer in Boston, residing in Dedham, 60 years of age, a stout, large-framed, powerful man, came under my observation May 15th, 1865. Complained of dysphagia, dyspnoea, aphonia, rattling in throat, great pain in throat, and particularly at both joints of the lower jaw. These troubles had lasted for about two years. His general health had suffered. Besides, he was subject to debilitating attacks of diarrhoea every summer. He was able to take only liquid food, and a good portion of that was rejected from the throat. An audible sound of rattling in the throat was present most of the time. There was considerable expectoration, of a varied character. Sometimes it was a curious, pale purple, sometimes dark colored, sometimes it was white, aerated and viscid. It had no perceptible unpleasant odor. The lungs and heart were normal. Sometimes there was great pain in the bowels, particularly during the attacks of diarrhoea. No trouble with urinary organs, and *no syphilis* whatever. This case was seen in consultation with Dr. Bowditch, and courteously placed in my hands for diagnosis and treatment.

On inspection with the laryngoscope, what was thought to be the vocal cords was seen with some ulcerated surfaces around. There were white objects at either side of an open cavity at the root of the tongue. This was the first observation. On further careful study, the opinion was altered from the following reasons:—1st, the epiglottis did not preside over this cavity. It was found far to the front, pressed toward the right, very much folded on itself, and somewhat ulcerated on its edges. 2d. Sometimes there was a collection of mucus in this cavity, which was stationary, and did not move with or

impede the movements of the breath. 3d. The posterior wall of the pharynx was found continuous with the cavity. Œsophagoscopy had been thus performed. The white objects were ash-colored debris covering the ulcerations in the œsophagus. The edges of the gullet were immensely thickened, everted, fissured, looking very much like piles everted about an anus. The œsophageal tumor was continuous with the left arytenoid cartilage, which was enormously swollen at times and covered with thickened, sometimes œdematous mucous membrane. The diagnosis was positively malignant disease of the œsophagus involving the larynx.

CASE IX.—*Aphonia, with severe Cough, shown to be dependent upon an Epiglottis bent to a right angle, and fissured by Ulceration almost to its Base, and upon thickening and minute digitate Excrescences on the Vocal Cords.*—November, 1865. Dr. C. S. Bishop, formerly the able and very popular Demonstrator of Surgery at the University of Pennsylvania, submitted himself to examination. He had overworked in his position, had had an attack of tubercles in the right lung, from which he had almost recovered. Had contracted a severe cold, with a terrible, harassing cough, which had lasted several months. He was aphonic. He would be suddenly seized, while talking, with severe paroxysms of violent cough, as if there were some extremely annoying foreign body in the throat needing removal.

On laryngoscopy, the epiglottis was found bent at its middle, backwards to a right angle. The lower half was upright, so that the bend was abnormal. On the right side was a loss of substance, broad at the free edge, and narrowing as it penetrated down deep to the base of the epiglottis. It was as if a V-shaped portion had been excised by two cuts with scissors. The spur on the extreme right of the epiglottis thus made and exposed, hung down much like a cur's ear, and was covered with a white-ash colored exudation, broader than that upon the upright portion of the epiglottis. The linguo-epiglottidean frænum was much exposed and enlarged. The arytenoid cartilages were unusually long and thin. The cartilages of Santorini were also very distinct. Through the abnormal fissure of the epiglottis the left superior and inferior cords were seen thickened towards the arytenoid ends. On the arytenoid end of the inferior right cord small, digitated processes of abnormal growth projected inwards.

Remarks.—As suggested by the patient, probably there had been ulcerations upon the laryngeal surface of the epiglottis, which, in healing, contracted and bent the epiglottis, weakened as it was by the loss of substance, which was occasioned by a deeper ulceration wholly through all its tissues.

CASE X.—*Sessile Growth involving the whole of the Right Inferior Cord, and one half of the Left Inferior Cord towards the Thyroid End.*—Miss A. M. J., 28 years of age, born in Jaffrey, N. H., residing in Pepperell, Mass.; school teacher for five years; labors not very excessive, as the character of the school was mixed and continued only

half a year. Always strong and healthy, she dates the beginning of her trouble in September, 1862. Hoarseness was the first symptom; no soreness, no dyspnœa, no dysphagia, no cough. Was hoarse just as much in school as out. At first, the hoarseness occurred particularly in the morning, and disappeared during the day. In the morning again, it seemed as if she had taken a new cold. Could talk with an effort, and could sing until September, 1864. She continued with varied alternations of relief and trouble till the spring of 1865, when her health failed somewhat, and she gave up her school. At no time was she entirely free from the hoarseness, which gradually grew worse, despite active general and local treatment, faithfully and skilfully applied by her attending physician, Dr. Miles Spaulding, of Groton, Mass., and his consultees. In June, she became entirely aphonic. Sept. 14th, 1865, came under the observation of the writer. Condition—perfect, blooming health, except the aphony.

Laryngoscopy showed the existence of a sessile tumor on the right inferior vocal cord, near its insertion into the thyroid cartilage. At first observation it appeared the size of a split pea, the long axis parallel to that of the cord. Upon subsequent careful and repeated examinations, the patient's throat being extremely difficult to manage, it was found that the growth was much more extensive than was imagined, covering the whole right inferior cord, and involving the thyroid half of the left inferior cord, also sessile. When the glottis is open, it appears of a pale-red color; when it is closed, it seems white and exsanguine. Its surface is irregular. At the thyroid junction of the cords it projects a teat-like process upwards. Towards the arytenoid end of the right cord it presents a head like those mentioned in the cases just related, globular and bossed.

[To be continued.]

TREATMENT OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—In the last number of your JOURNAL is an article on cholera and its management and medical treatment, which is good so far as it goes, describing the cause and course of this disease; but when we meet the disease, face to face, in a severe form, as I have often done, with anxious relatives standing around, and a more anxious patient looking to us for a mitigation of their distress, it is not for us to theorize much on the subject, but to go to work immediately with dosing and friction, with strong sinapisms over the entire bowels, and if one remedy is better than another, to employ it at once. There was a time when ignorance was excusable, but that time is in the past. Incontrovertible facts prove that the application of ice, or any other principle of treatment other than that of a stimulating one, is not only hazardous but murderous. By stimu-

lants I do not mean alcoholic, as those are most certain death if the case be a bad one; but pure stimulants, such as capsicum, and others that are nearly so—camphor, xanthoxylum, &c., which are the only reliable ones to use or trust. I have seen cholera in all its forms, and have seen the effect of ice, alcohol, opium, &c., and none of them are to be relied upon. But some content their consciences by saying, I have done as authority recommends, and consequently it is right. But I believe in progress, and if one remedy is better than another that we ought to use it, even if an *old lady has used it first*.

For the benefit of the profession, I will give a formula which in my hands has proved better than any remedy with which I am acquainted:—*R.* Capsici baccati. tr., f ʒ iv.; gum. camphoræ, ʒ ij.; lobeliæ inflatæ sem., ʒ i.; xanthoxyli fraxinei, ʒ viij.; ol. menthæ piperitæ, f ʒ i.; ol. gaultheriæ, procumb., f ʒ i.; ol. cassiæ, f ʒ ss.; sp. vini rect., cong. i. *M.* Digest ten days, shaking frequently. Dose from one tea to one tablespoonful in sweetened water, warm if convenient; repeat often if it is not retained, and give by enema as well as by the stomach, in warm water. Give also rice coffee made strong; let the rice be well burned, and give the coffee freely. Give also beef-tea, made by broiling the beef slightly, cutting it fine, and covering it with boiling water; let it stand ten minutes, press it out and give it to the patient freely.

After the vomiting and purging are stopped, very little medication is necessary; but control the fever by warm bathing with lye water. Take, also, rhei pulv., menthæ piperitæ, potassæ bicarb., of each one spoonful; add one half a cupful of boiling water, sweeten, and give one tablespoonful once in three or four hours. Perfect rest for several days is necessary. The diet should be light and easy of digestion.

S. P. HUBBARD, M.D.

Taunton, Mass., January 20, 1866.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 26th.—*New Pulvérisateur*.—Dr. C. G. PAGE showed a *pulvérisateur* designed by him, by means of which the pulverization was made to take place within the mouth, and could be directed to any part of the throat. The special superiority of this instrument is, that caustic and colored fluids can be used without danger of staining the skin of either operator or patient. The instrument consists of two tubes parallel to each other for a distance of three inches or more, the points tapering and approaching each other at a right angle, as in the usual form. The fluid-bearing arm is also bent downwards at a right angle, so as to reach the vessel containing the liquid. The instru-

ment at the same time serves the purpose of a spatula, depressing the tongue sufficiently for all practical purposes while using it.

DEC. 26th.—*Old Pericarditis and general Cardiac Hypertrophy.*—Reported by Dr. J. N. BORLAND. The patient was a man 32 years old, who entered the Boston City Hospital on Dec. 5th, he never having been ill, excepting with rheumatism and its sequelæ. Of this, however, he had a succession of attacks in the acute form, at the ages of 7, 8 and 9 years, and four or five times since. In 1848, and once later, he had pericarditis. Since 1848, he has noticed an irregularity in the heart's action. His last attack of rheumatism was in the spring of 1863. Has had fugitive pains since.

On Nov. 26th, having been exposed to a current of air when heated, his present sickness commenced with pains in his back and shoulders. On the morning of entrance into the hospital, his pains became more general. When first seen, the record states that he had much pain in foot, shoulder, arms and hands, though no great swelling or redness. Thick creamy coat on tongue; poor appetite; costive bowels; high-colored urine; pulse 96, full, strong and regular. He had been under medical advice, and had taken colchicum and morphia.

On Dec. 6th, Dr. Borland saw him for the first time. The heart's action was heavy, labored, most marked at apex. Pulse 40, regular, large, soft and compressible. Face livid. Dulness existed from the fifth rib to the ninth, and laterally from the middle of the sternum to one and a half inches below the left nipple. The sounds of the heart were indistinct, particularly the second, obscured and distant; some apparent aortic regurgitation. *R.* Vini. colch. rad., gtt. x.; liq. ammon. acet., *℥i.* M. Every four hours. *R.* Ext. hyoscyami, ext. conii, *āā* gr. ijss. M. Instead of morphia. *R.* Emplast. epispast. 4×4 inches over heart. Enema of soap suds. Pulse, at 5, P.M., 36.

Dec. 7th.—Pulse 34. Coloring of countenance better, though the lips are still livid. Enema acted freely. No bulging of the intercostal spaces. The pill of hyoscyamus and conium not being sufficient, the patient resumed the use of morphia in the night. The colchicum was omitted, and citrate of magnesia was ordered for a purgative. If morphia was required at night, it was to be given by subcutaneous injection, in dose of quarter of a grain.

Dec. 8th.—Has assumed upright position. Pulse 30, strong wave, heavy cardiac impulse. Lividity of countenance increased. Spasmodic twitchings of face and arms. Is inclined to doze, dropping asleep while answering questions. Thinks amount of urine has diminished within a few days past. Took about eight ounces of sol. citrate of magnesia, without effect. Sounds of heart about as at previous record, excepting the second sound being slightly more distinct. Dulness is somewhat less extensive. May have cream-of-tartar water for drink. *R.* Brandy *℥ss.* as needed; and spts. eth. nitrosi, *℥i.* every three hours. Full enema this afternoon.

Dec. 9th.—Skin moist. Pulse 34. Since yesterday afternoon has taken half an ounce of brandy every two hours. States that he has never been in the habit of using any kind of alcoholic stimulus. Omit brandy and substitute champagne, three ounces every two hours.

Dec. 10th.—Having been taking his stimulants for about thirty-six hours, at about 5 o'clock this A.M. heart began suddenly to beat much faster, the pulse rising to 98. Now, 10, A.M., pulse 100. Tongue

red on edges, creamy on centre, moist. Increased amount of urine in past six hours. The champagne to be given every four hours. *R.* Magnesiae citras sol., ℥vi. , and repeat in six hours if no dejection. After opening the bowels, *R.* Potassae acetatis, potassae bicarb., āā ʒss. , M., in lemonade every four hours.

Dec. 11th.—Medicine produced one small dejection, removing the slight abdominal soreness and tenderness, of which he had complained. Urine free. Tongue as before. Can lie on back without discomfort. Dulness exists from the fifth to the eighth rib. Impulse less heavy. Apex strikes parietes sharply. No bulging of intercostal spaces. Slight systolic murmur exists, loudest over base. Second sound less sharp than natural. May have lemonade freely. Diet hitherto has consisted chiefly of raw oysters. Asks for, and may have, eggs in addition.

Dec. 12th.—Appears easier. Pulse 100. Tongue moist and cleaning. *R.* Sol. magnes. citratis, q. s. 10, P.M.—The pulse again suddenly fell to 34, the patient complaining of considerable pain in the cardiac region. It soon fell again to 22 per minute, beating for some time at that rate, then rising to 28. He was immediately ordered half an ounce of brandy every hour, with sinapisms to the chest. At 1, A.M., Dr. B. saw him, and found him somewhat anxious, but quiet. Face pale. Extremities bathed in cold sweat. Pulse 28, and very irregular. His brandy was directed to be continued, and given in effervescent soda water; and *R.* Ammoniae carb., gr. v., in syrup, every hour.

Dec. 13th.—Pulse, since 2, A.M., 32, regular. Appears easier, but has some dyspnoea. *R.* Spts. ether. co., ʒi. p. r. n. . Omit brandy and soda, and substitute champagne. At 12.30, P.M., he died.

Autopsy.—The heart, empty of blood, weighed thirty-three ounces, and was in every part greatly hypertrophied. The aortic valves were greatly thickened, with some cretaceous deposits on the inside. The pericardium was in every part universally adherent by tight old adhesions. No marked or old disease of the kidney was discovered, though there was some apparently commencing inflammatory action.

This case attracted considerable interest from the remarkably slow and protracted action of the heart, with its sudden change of rate; and the suggestion of Dr. C. Ellis is perhaps the most satisfactory—that the heart which has been working so heavily and at such a disadvantage for so many years, at last under its new burden breaks down in its action, as a tired horse gives out. Responding to the action of stimulants, it resumes a more natural beat for a while, then again gives out, and this time hopelessly.

Dec. 26th.—*Hydrocephalic Skulls.*—Dr. JACKSON exhibited two fine specimens, which he had received within a few weeks for the Museum of the Massachusetts Medical College.

The first was presented by Dr. B. Joy Jeffries, and was formerly in the collection of his grandfather, the first Dr. Jeffries. It was prepared by Dr. A. Ramsay, a Scotchman, who was here for some years, and had a high reputation as an anatomist. The skull measures in its greatest circumference 27 inches, and over the head, from one auditory meatus to the other, $19\frac{3}{4}$ inches.

The other specimen was presented by Mr. Walter C. Blaisdell, a member of the present medical class; and the following facts were

obtained by him, chiefly from the mother, but partly from what he saw of the case during life.

The child, a female, was three years old to within a month at the time of its death, which occurred within the last year, and was occasioned by a slight diarrhœa of a week's duration. The head was about twice the natural size at birth, and the anterior fontanelle very large; the enlargement increasing gradually, so that about a week before death it measured in its greatest circumference $27\frac{3}{4}$ inches. It was never able to sit up and support the head, nor even to turn it from the left side, upon which it always lay. It never spoke, and seemed to have no intelligence. The vision was always very imperfect, and occasionally quite lost; and there was also a slight strabismus from birth. For a time there was slight deafness, but this increased, so that it could only hear when the mother spoke in a very loud tone of voice. It slept generally not more than $1\frac{1}{2}$ in 24 hours; and was very restless, moaning much of the time, as from distress, and requiring a free use of opiates, but not crying out as from sharp pain. Never convulsed. Fæces generally passed involuntarily, and sometimes the urine. In regard to its general health, it was feeble, thin and pale, but sufficiently warm; nursed its mother heartily until the time of its death, and took cow's milk, but never any solid food.

On examination, which Mr. B. made alone, he found the cranial cavities filled with serum, and the cerebellum sufficiently natural in appearance; but of the cerebrum he found very little remains.

The specimen, which is an uncommonly fine one, and was very beautifully prepared by Mr. Blaisdell, shows all the characteristics of a hydrocephalic skull—the great disproportion between the facial portion and the vault of the cranium—the thinness of this last and the great deficiency of bone in place of the anterior fontanelle—the disappearance of the supra-orbital ridge—the numerous Wormian bones, one of which is of large size—and the deeply serrated sutures. The greatest circumference is 27 inches: and from one auditory meatus to the other, over the top of the head, and allowing for the deficiency at the anterior fontanelle, it measures 20 inches.

Bibliographical Notices.

Éléments de Pathologie Interne et de Thérapeutique (Principles of Internal Pathology and of Therapeutics). Par Prof. NIEMEYER. Traduction de l'Allemand, par Drs. CULMANN et SENDEL. Tom. 1er. Paris: Juillet, 1865.

[Read before the Norfolk (Mass.) District Medical Society, Jan. 10th, 1866, by F. MINOT WELD, M.D., of Jamaica Plain.]

This is an octavo of nearly nine hundred pages, and is peculiarly interesting as showing that the medical world of Europe is progressing in the same direction as our own.

The author treats organic diseases before constitutional ones, on the ground that the latter generally lead to the former, and in consequence are better understood if the former are first studied.

First, then, we have "Diseases of the Organs of Respiration,"

beginning with those of the larynx, at the head of which stands "Hyperæmia and Catarrh of the mucous membrane." This disease has sixteen pages allotted to it, including separate sections on Pathogeny and Etiology, Pathological Anatomy, Symptoms and Course, Diagnosis, Prognosis, Treatment. Then follow chapters on Ulcerations of the Larynx in the infectious diseases, Tuberculous Ulcers, Cancer of the Larynx, Œdema of the Glottis, Laryngitic Perichondritis, Neuroses of the Larynx, and Spasm of the Glottis, this list covering fifty-five pages, and giving a fair idea of the care and minuteness evinced throughout the work.

Under "Croup" is an interesting note by the reviser, Dr. Cornil, on the respective German and French meanings of the words diphtheria and croup. In France, diphtheria means a constitutional disease, non-inoculable, but contagious, specific, and liable to appear on the mucous membrane of the respiratory and digestive passages, the vulva, prepuce, conjunctiva and skin. Croup is applied only to the localization of diphtheria in the larynx. In Germany, on the contrary, croup denotes the production on a mucous membrane, of a fibrinous exudation. So acute pneumonia, the type of inflammations with a fibrinous exudation, is called croupal pneumonia in all their works on pathology. Diphtheria is applied to those cases in which the exudation is developed not only on the surface, but also in the substance of the mucous membrane. This difference is attributed to the fact that the Germans class croup and pneumonia together, on account of the anatomical identity of the exudations in the two diseases. But the French distinguish, having reference to the etiology, the former being due to contagion or epidemic, and the latter to cold, and ranking croup as a constitutional disease and pneumonia as a local inflammation.

Passing over Diseases of the Trachea and Bronchi, we come to those of the Pulmonary parenchyma—to which the author gives one hundred and fifty pages, forty of which are devoted to Pneumonia.

Inflammations of the Lungs, he says, are most naturally divided into three forms, viz. :

First : Croupal Pneumonia, which represents the same condition in the pulmonary cells that croup does in the laryngeal mucous membrane, i. e. fibrinous exudation.

Second : Catarrhal Pneumonia, where we have the same essential conditions as in laryngitis and bronchial catarrh, i. e. an increase of secretion and an abundant formation of fresh cellules, without coaguble exudation in the cells.

These two forms of inflammation deposit their exudations on the free surface without the pulmonary tissue itself suffering any essential troubles of nutrition.

The third form, Interstitial Pneumonia, on the contrary, consists of an inflammation which attacks the pulmonary cell-walls and the connective tissue between the lobules. This last form is almost always a chronic affection and is generally called chronic pneumonia, in opposition to the other two, which are acute.

As to the treatment of pneumonia I quote the author's words, at intervals. "Left to itself, it almost always terminates in recovery, provided the patient is robust, and the disease not complicated nor excessively intense. This fact is of recent discovery, and it is to the

expectant school of Vienna, and to the success of the homœopaths, that we owe this important knowledge. From it we deduce the rule that pneumonia demands therapeutic intervention as little as variola, rubella, and other self-limited diseases, when they attack persons previously in good health, are not complicated, and are of an average intensity. It is even proved that interference has an injurious influence on the course of the disease. This is especially true of bleeding. If a person dear to me were affected with pneumonia, I would much rather see him in the hands of a homœopath, than in those of a physician who believed that he held the cure of the disease at the point of his lancet; however great may be the value I attach to bleeding when it is reserved in the course of pneumonia for certain emergencies. The experiments of Dietl prove that bleeding is not a specific against pneumonia, and that it does not cut short the course of the disease.

"I have made extensive applications of cold with most favorable results. I always have the chest on the affected side covered with napkins wrung out in cold water. These should be renewed every five minutes. The patient almost always expresses relief in a few hours. The dyspnoea and often the frequency of the pulse is lessened, and sometimes the temperature is reduced a degree. Very rarely it fails to produce relief, and the patient refuses to continue the application on account of its inconvenience. Bleeding should be employed only in the three following cases. First, when the pneumonia has just attacked a person healthy and robust heretofore, and the temperature exceeds 40° Centigrade (122° Fahrenheit), and the pulse is above one hundred and twenty. Secondly, when a collateral œdema in the section of the lungs spared by the pneumonia threatens life. Thirdly, in symptoms of cerebral congestion.

"Digitalis is indicated when the pulse is between one hundred and one hundred and twenty, often in combination with neutral salts. Tartar emetic has lately sunk into discredit. Ipecac, quinine, veratrine, and inhalations of chloroform have not given results satisfactory enough to merit employment in private practice.

"In the latter stages stimulants are to be freely used, and in a slow convalescence, quinine and iron, &c. are beneficial." We see that *veratrum viride*, so justly popular in this vicinity, is scarcely mentioned by Prof. Niemeyer, while the time-honored blisters and sinapisms are entirely ignored. He sums up: "In most cases of pneumonia the remedies indicated are all that will be needed, and a harmless mixture, or a palatable drink, which, given every two hours, will tranquillize the patient, is sufficient to lead the disease to a speedy and happy termination."

Further extracts are unnecessary to show the author's views.—In a word, the general course of treatment he recommends approximates closely in character to that of the advance of the expectant school of this vicinity, though he has evidently not quite reached the conclusion that "Disease is a part of the Plan of Creation."

IN Kings County (N. Y.) Hospital, there were remaining July 31, 1864, 326 patients; 3,117 were admitted during the year, to July 31, 1865, making the whole number under treatment 3,443, or 842 more than the previous year; 336 died, and 370 remained at the end of the year.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, FEBRUARY 1, 1866.

 COMMUNICABILITY OF CHOLERA.—QUARANTINE.—NECESSITY OF CON-
GRESSIONAL ACTION.

At a meeting of the Commissioners of Health of New York city, held Jan. 23d, the Resident Physician, Dr. Sayre, announced that "information had been obtained by the last arrival from Gaudaloupe, that the cholera was introduced there by a trunk containing clothing of two persons who had died of the disease while on passage from Marseilles, where the disease prevailed; and the fact that the woman who washed the clothes, and all her family, died almost immediately; and that a number of persons attracted to her house by the sudden mortality were also attacked, many of whom died." He also read a letter from Dr. C. A. Lee, Professor of Hygiene in the Buffalo Medical University, which we give as a fair representation of the views concerning the communicableness of cholera now almost universally adopted by the profession in Europe, and which we are convinced will be largely endorsed by physicians in this country also, when the facts upon which they are based are fully understood.

"BUFFALO UNIVERSITY, MEDICAL DEPARTMENT, }
January 17, 1866. }

"Lewis A. Sayre, M.D.

"DEAR SIR,—Some time since you did me the honor of requesting my opinion in regard to the contagiousness of cholera. Circumstances beyond my control have prevented attention to your request, and even now I can only briefly indicate the conclusions at which I have arrived, after close and varied personal observations of its progress, both in our own and in foreign countries.

"In the first place, then, I have seen no reason to believe that the disease is ever communicated directly from one person to another, even under circumstances of the greatest intimacy. In other words, *it is not contagious*, according to the common understanding of that word.

"On the other hand, facts abundantly prove *that the disease is portable*, and always follows the great routes of travel and commercial intercourse. I hold, also, that we have satisfactory evidence that the disease is communicated through the evacuations of those infected with it, and in this way only. I could adduce many instances where there can be no question that the cholera has been conveyed to hitherto healthy localities by means of one infected person, in whom the disease has manifested itself only by an apparently trifling diarrhœa. Persons so affected may doubtless travel from one place to another, without serious development of the disease, and leave behind in privies and water-closets germs which may give rise to a deadly epidemic. It is this fact, so generally overlooked, or not recognized, that has thrown so much mystery over the causes and mode of extension of this most fatal and mysterious malady.

"This fact also explains those apparent anomalies in the progress

of the disease, why it often takes no defined course in its wanderings, but spreads indifferently in different directions and to different quarters, now with the wind and now against it—now following the main routes of travel, nevertheless often deviating from them, *but travelling no faster in any case than ships, railroad cars, and men travel*. Those great leaps which it sometimes seems to take, and which have been supposed to be owing to the poison of the cholera being carried by winds, are thus satisfactorily explained.

“Although cholera is undoubtedly communicated by the fresh dejections of those infected, I think there can be little doubt that, if the poison may not be actually present in the stools just discharged, it may be generated in them at a later period under certain conditions favorable to its development. These conditions are now pretty well understood. The contact of such discharges with putrid animal and vegetable matters is very certain to develop the poison of cholera, and an impure atmosphere from the presence of similar matters favors its rapid dissemination. The accumulation of filth and organic remains, imperfect sewerage, overcrowding of tenement houses, and the saturation of the earth with the products of decay, are the chief causes of the greater intensity and diffusion of the disease in large cities than in other localities. To these, however, may be added the great imprudence with which cholera discharges are emptied into common privies, gutters and sewers, which serve as *foci* from which the malady spreads in every direction. Hence, we find that in localities visited by the disease, the houses and streets in which those infected reside are the places of the greatest danger. But while these are being depopulated, the epidemic spreads rapidly; attacking first those low, filthy, over-crowded places, where the predisposing and favoring causes most abound: afterwards ravaging portions of a city and localities which were at first wholly exempt, and which were probably deemed safe from any danger of an attack.

“I think the experience on board the Atlanta tends strongly to confirm the correctness of these views. The disease originated in the steerage, where it may have been brought by one individual laboring under *cholérine*. As the water-closets used by the steerage passengers were not used by the first-cabin passengers or the crew, not one of these latter were attacked by the disease, while large numbers of the steerage passengers, who exclusively used them, were seized with the malady. Does not this theory also afford a good explanation of the fact that the disorder is generally more active on lines of travel by water than by land? Although these views seem to me to be abundantly sustained by well-known and acknowledged facts, I am ready to admit that there are some phenomena which cholera exhibits in its wanderings, which it is difficult to explain by any existing theory. But this ought not to prevent us from profiting from what is actually known.

“The practical lessons which flow from these considerations are the following:—

“1. Quarantine regulations cannot be too strict nor too rigidly enforced.

“2. The most thorough sanitary measures must be enforced and carried out in all places exposed to the invasion of the disease, especially in large cities, where every effort should be used to have all

houses, streets, alleys, privies, drains, cess-pools, &c., thoroughly cleansed and disinfected.

"3. All intercourse with places infected with the disease must be absolutely prohibited, or at any rate guarded with the greatest care and precaution.

"4. Should the disease unfortunately be introduced into a place, *cholera stools should never be emptied into necessities and water-closets in common use.*

"5. The police should be instructed to pour into every privy and water-closet suitable disinfectants, or furnish the same for this purpose."

If any evidence were wanting as to the hasty and ill-advised character of the resolution concerning cholera adopted by the Suffolk District Medical Society a few weeks ago, a resolution which we felt authorized to state at the time in no way represented the opinion of the medical profession of Boston, and which has since been generally condemned by the medical press of the country, it may be found in the use which has been made of it by a class of persons in this community for wholly selfish purposes. It will certainly be a surprise to many to learn for the first time, by way of Philadelphia and New York, that we in Boston are in favor of the abolition of quarantine, and unless the Society feels justified, after a careful consideration of the present epidemic, in recommending a course so entirely at variance with the action of similar bodies elsewhere, it is its duty to express itself in a way capable of no such misuse in future. An article on this subject in the *Philadelphia Medical and Surgical Reporter* will be read with interest.

"In anticipation of, and with a view to influence or counteract probable congressional legislation on this subject, the *free-traders* and *free-intercourse* people—that is, the importers and merchants—of Boston have already issued a pamphlet, addressed to the same class of citizens of New York, in which the abolition of quarantine is advocated. We are sorry to see that the resolutions passed by the Boston physicians, on the abstract question of the contagiousness of cholera, are now used by these men as an argument in favor of abolishing quarantine. If that was the object of these resolutions, which we have quoted in a previous number of the *Reporter*, then we cannot too severely condemn the Suffolk District Medical Society for its hasty and injudicious action, which furnishes to these merchants, whose only care is for their bales of silk and boxes of dry goods, and eventually for their dollars and cents, a strong lever, by which they hope to lift quarantine out of its foundations, and throw it into the sea. And we are also sorry to see that Dr. Snow's otherwise excellent paper—which unfortunately was addressed to the public at large, who have no means of judging correctly in such cases, instead of to the profession—is in the same way used to make capital for the importers and jobbers. * * * * * The profession, when it passes resolutions which are calculated to go before the public, is *responsible* for their interpretation, and the uses to which they are put by designing men for purposes of their own. Is the Suffolk District Medical Society willing to let its official seal be affixed to the pamphlets of the Boston merchants, by furnishing them with ambiguous resolutions to be

used *ad libitum*, and for purposes detrimental to the public welfare? If not, we call upon it to remedy the bad effects resulting from an injudiciously taken step. It is not too late for that society to put itself right before the public and the profession, and we beg them to take the matter into early and earnest reconsideration."

There can be no question, it seems to us, as to the necessity of some immediate and general action on the subject of quarantine by the government at Washington, for the folly of independent State or municipal laws in such a country as ours is self-evident. Let the subject receive the consideration of one general scientific commission, which shall calmly investigate the facts observed in the present and past epidemics, and act independently of all such incompetent and meddling powers as that above referred to. We commend to the notice of our readers the judicious argument of Dr. Sayre in his recent report to the Board of Health on this subject. He says:—

"New York is accessible by the land as well as by the sea, and unless these same quarantine regulations are enforced in every seaport town upon the entire coast, there is no security; but the disease being imported into some of these seaport towns, may come to us by railway communication. We may therefore see the necessity for Congress or the General Government to take possession of this matter, and enforce a uniformity of quarantine regulations at every port of entry. The Government establishes a port of entry, collects revenue at a port of entry, and should, therefore, perform the duties connected with a port of entry, one of which is a proper quarantine establishment, and kept under military regulation, by which it may be rendered uniform and efficient. It sometimes happens that the port of entry, as in our own city, lies upon a river bordering upon two States, and the port may be in one State, and the most advantageous place for a quarantine under the jurisdiction of another. This conflict of jurisdiction renders it essential that it should be placed under the control of the General Government. The General Government would not hesitate to take possession of any place where it could best protect the country from an invasion by a foreign foe, irrespective of State boundaries, or State jurisdiction, were it to come in the form of armies or fleets. How much more necessary, then, that the same precautions should be taken against a secret foe of pestilence and poison, vastly more destructive of human life than a fleet equipped with Armstrong guns. As there are also many ports of entry, it is a necessity that the General Government should assume this control, in order that their action should be uniform; as we have already received an official communication from the city of Boston, in which a committee of medical men have stated 'that the disease is neither infectious nor contagious; cannot be communicated by one person to another by their effects or things, their excretions or secretions, and that it is an epidemic entirely beyond quarantine regulations, or military cordons, and they, therefore, unanimously recommend the immediate removal of all such restrictions.'

"Boston being a port of entry, and having promulgated in pamphlet form to the merchants of this city their views upon this subject, may introduce into their harbor commercial intercourse, and the disease be disseminated throughout the country by railway communica-

tion ; it is, therefore, patent that it is a necessity that the General Government should assume jurisdiction in this matter, as the General Government is responsible for the protection of the entire nation, and, by convention with Canada and the British provinces, a uniformity of quarantine could be established upon the entire coast, and thus the continent be protected from this terrible scourge.

“ Congress has recently very wisely enacted a law to prevent importation of disease among our cattle. How much more necessary that it should enact a law which would enable us to prevent this plague and others from being imported among our people ? ”

Injection of Animals with Fluids from Cholera Patients ; Death with Cholera Symptoms. Efficacy of Subcutaneous Injections in the Treatment of the Vomiting of Cholera.—At the meeting of the *Société Médicale des Hopitaux*, at Paris, held November 22d, M. Hérard reported the case of a young girl affected with cholera for two weeks, who continued to vomit daily about two quarts of a liquid transparent as water and but slightly differing from that fluid in composition. Of this liquid M. Robin injected a quantity into the trachea of healthy dogs, producing vomiting, liquid evacuations and chills—in short, symptoms strictly analogous to those of cholera, and terminating in the more or less speedy death of the animals. The same result followed injection with the liquid portion of the blood drawn from cholera patients during the period of reaction. Injected into the stomach, these symptoms did not follow, a circumstance probably due, according to M. Robin, to the fact that the liquids were digested, and thus lost their toxic properties. In one case, however, a dog which had by chance devoured a large quantity of the alvine dejections of a cholera patient, died with all the symptoms mentioned above. In this case it was supposed that the stomach was unable to digest the whole of the morbid excretion, and the remainder was absorbed with all its deleterious properties, as in the case of injections into the trachea.

M. Buequoy stated that M. Bourdon had often stopped, by means of subcutaneous injections of morphia, the vomiting of cholera patients, after it had resisted all other methods which had been tried.

At the meeting of the Imperial Academy of Medicine, held on the 2d ult., M. Guérin presented a note from M. Pélican, the Director-General of the public Health in Russia, in which he remarked that Russian physicians, who were all anti-contagionists in 1831, are now completely converted to the doctrine of the contagiousness of cholera.

At the last accounts the cholera was raging at Martinique, and two cases had arrived at Havana on board a steamer from Europe ; the authorities placed her in quarantine.

The deaths from cholera in Paris during the present epidemic had reached the number of 6,337 on the 22d of December last.

OBITUARY.

DR. THOMAS W. BLATCHFORD, of Troy, N. Y., whose death was recorded in the *JOURNAL* last week, was born in England in 1794. He was quite young when he came to this country, and resided with his parents at Bridgeport, Conn., until the year 1800, when the family went to Lansingburgh to reside. After a thorough course of scholarly training in this country, he attended the lectures of Sir Astley Cooper in London. He went to Troy in

1828, and was a practising physician there for about forty years, being at the head of his profession. He was justly esteemed as one of the most eminent physicians in the State. He has during his long professional career contributed numerous monographs to the standard medical publications of the country. One on Hydrophobia, published some years since, attracted general attention in this country, and was translated into several continental European languages and published extensively abroad. He had a thorough medical education, and was an extensive reader in the line of his profession. He held prominent positions in the National and State Medical Societies, as well as in other local and general medical associations. Aside from medical services, Troy owes him a lasting debt of gratitude for his noble exertions in the cause of education. He was a member of the first Board of Education in 1849, and continued an active member until 1856, when the cares of his profession and advancing years induced his resignation. He manifested great interest at all times in the religious and moral questions of the day—was an earnest advocate of temperance—and for a number of years an elder in Dr. Kennedy's church, at which he was a regular attendant. Possessed of the noblest qualities of head and heart, with talents of the highest order, a mind inspired by the noblest impulses, his death will be mourned as a public loss, no less than an irreparable private grief to the immediate circle of relatives and friends who best knew his manly and noble characteristics.

DR. HENRY BIGELOW, who died on the 21st of January at his house in Newton, was a native of Worcester, was early fitted for college, and graduated at Harvard College in the class of 1836. After entering upon his profession in 1839, he practised for a short time in the town of Buxton, in Maine, but soon settled in Newton, where he resided till his death. It is seldom our duty to record the decease of a person more worthy, beloved and useful, and who will be more generally and sincerely lamented. He had resided in Newton for twenty years, covering the period of its growth and prosperity, had always been identified with all its interests, and for the last eighteen years has stood at the head of its educational affairs. To his peculiar ability and good management is the town indebted for the noble condition of its public schools. In his profession Dr. Bigelow was skillful, faithful and kind. He never attended a patient who was not improved morally by his presence. His gentle spirit was in sympathy with all their sufferings, and his pure Christian faith seemed to light the way of the dying through the dark vale of the shadow of death. He was a very prominent member of the Channing Church at Newton Corner, and it may be long before the great vacancy his removal has made will be filled.

New Medical Journals.—We have received the first number of the *Savannah Journal of Medicine*, edited by Juriah Harris, M.D., Professor of Physiology in Savannah Medical College, J. B. Read, M.D., Professor of Materia Medica, do., and J. G. Thomas, M.D. It will appear bi-monthly. —The *Cincinnati Journal of Medicine*, edited by George C. Blackman, M.D., Theophilus Parvin, M.D., and Robert Bartholow, M.D. It is to be published monthly. —The *Atlanta Medical and Surgical Journal*, edited by J. G. and W. F. Westmoreland, M.D. —Also prospectuses of the *Detroit Review of Medicine and Pharmacy*, a monthly journal, to be edited by George P. Andrews, M.D., Samuel P. Duffield, Ph.D., and Edward W. Jenks, M.D.; and the *Medical Record*, to be published twice a month by Wm. Wood & Co., New York. Editor, George F. Shrady, M.D.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 27th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	40	37	77
Ave. mortality of corresponding weeks for ten years, 1856—1866	39.7	35.9	75.6
Average corrected to increased population	00	00	82.36
Death of persons above 90		3	3

CORRECTION.—We learn from Surgeon-General Dale that the name of Bt. Lt.-Col. Bowman B. Breed, late U. S. Vols., was accidentally omitted from the Roster of Massachusetts Surgeons, on the second page of his Report.

DEATHS IN BOSTON for the week ending Saturday noon, January 27th, 77. Males, 40—Females 37. Abscess, 1—apoplexy, 3—disease of the brain, 1—bronchitis, 1—burns, 1—cancer, 1—consumption, 20—convulsions, 1—croup, 1—diarrhea, 2—diphtheria, 2—dropsy, 3—dropsy of the brain, 1—epilepsy, 1—remittent fever, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 2—hlp disease, 1—infantile disease, 2—influenza, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 6—necrosis, 1—old age, 5—paralysis, 1—premature birth, 1—puerperal disease, 1—pyæmia, 1—smallpox, 1—spina bifida, 2—teething, 1—unknown, 4—disease of the windpipe, 1.

Under 5 years of age, 18—between 5 and 20 years, 13—between 20 and 40 years, 19—between 40 and 60 years, 9—above 60 years, 18. Born in the United States, 56—Ireland, 18—other places, 3.

THE

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THURSDAY, FEBRUARY 8, 1866.

No. 2.

CASE OF PERICARDITIS, WITH LARGE EFFUSION, MARKED BY
CEREBRAL SYMPTOMS. DEATH.

[Read before the Boston Society for Medical Improvement, Dec. 26th, 1865, and communicated for the Boston Medical and Surgical Journal.

By HENRY I. BOWDITCH, M.D.

A YOUNG man, aged 17, living in a healthy place in one of our suburban cities, was the patient. Born of a nervous family, his mother and brother had had chorea. He himself had never been very ill; never had rheumatism; had had a good appetite, and seemed perfectly healthy till actual attack.

Oct. 31, 1865.—I saw him in consultation, the case having been considered a very obscure one.

The history was as follows. Four weeks before, he went to bed apparently in perfect health. He awoke during the night, chilly, but a hot foot-bath and warm drinks, &c., soon restored him, after slight vomiting of the sage tea he had taken for relief.

Next day, not feeling very well, he took salts and senna, and vomited anew; and then appeared pain in the left side of the thorax, with great oppression in breathing. The attending physician, on auscultation, found nothing marked about the physical phenomena of the heart or lungs. No distinct palpitations, no cough, no sputa. The next day there was a sudden attack of extreme orthopnoea, and the pulse was nearly absent for a few moments. Still, no marked physical phenomena on auscultation. On the contrary, by the account of the attending physician, there was nothing manifest, even on a close examination.

On the following day, all the thoracic symptoms suddenly yielded; and never after were prominent. The pulse recovered its character, the orthopnoea disappeared, and the patient was, at my visit three and a half weeks afterwards, able to lie down in any posture without apparent difficulty. A wholly new set of symptoms developed themselves, and were the only marked ones during that interval. Violent headache came on, with great flushing of the face and eyes, great restlessness, delirium, and strabismus, first of one eye and then of the other. For two or three days he was speechless. These cephalic symptoms

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for at least a week were quite severe, and were considered the only ones to be treated. After leeches and ice to the head, and active purges, and finally bromide of potassium, the more violent of them subsided, and when I saw him there was no flush of the face or strabismus; but there was, at times, a little wandering of mind at night, and nausea and great costiveness. He did not fully recover. One day his symptoms seemed to be typhoidal, in his dulness of intellect, some fever, &c., but the next he seemed brighter. His pulse was always rapid and feeble; his nights usually rather sleepless, with jactitation. The day before I saw him he had been quite drowsy. He had considerable nausea and vomiting a day or two previously, owing, however, apparently to medicine administered. The dejections had been normal, but rather infrequent and costive. Nothing remarkable noticed about renal excretion, but no special examination had been made.

I found him of rather small stature, with nothing striking in his aspect. He was lying on his back, quiet and rational, and without the least appearance of severe disease. His breathing was not at all hurried, and he spoke and moved in bed without any dyspnoea. His countenance was sufficiently bright; no strabismus. He answered promptly all questions, and with perfect intelligence, and during my whole examination he did not exhibit the slightest trace of cerebral disease. He did not look as much depressed or emaciated as I had anticipated finding him, after what had been said of his symptoms during the weeks preceding.

My impression, therefore, was, that the cerebral symptoms that had occurred were not dependent on manifest organic changes, such as inflammation of, or effusion into the cavity of the cranium, but rather upon some sympathy with another part of the body.

Remembering the earlier and very transitory symptoms of pain in chest, orthopnoea and pulseless condition, and the fact that at times pericarditis is wholly lost sight of in the cephalic symptoms that occasionally accompany it, I looked to the region of the heart to see if an explanation could be found there.

On percussion, I found dulness over the heart to three times the usual extent, viz., from the intercostal space between second and third rib downwards, and in breadth corresponding. The impulse of the heart was scarcely, if at all felt, and the sounds were very distant. A bellows murmur was heard high on the sternum, and down outside of the left nipple; not heard in the intervening space. The respiration was heard somewhat in both breasts, and in back throughout, without a trace of râles. The abdomen presented nothing of moment.

With these phenomena, it was evident that pericardial effusion existed to a considerable amount. Deeming it probable that that was the primary and chief source of trouble, I suggested the application of ethereal tincture of iodine (ʒ ss. of iodine to ʒ i. of ether) outside, and one fourth of a grain of digitalis three times daily, or *pro re nata*.

With this a general tonic course of diet was indicated—milk and bread, chicken broth, &c. As under the bromide of potassium, given at night, the nervousness had somewhat lessened, I advised its continuance.

The pulse continued to fail, and the digitalis was omitted in forty-eight hours. I did not see him subsequently, but he failed rapidly, and died six days afterwards, with the signs of increasing effusion; no return of cephalic symptoms.

At the autopsy, Dr. ELLIS found the pia mater at the base of the brain infiltrated, at some points, with pus, and the serum was more abundant than usual, and turbid. The brain itself presented nothing remarkable.

The pericardium was enormously distended by at least five pints of a purulent fluid, and large fibrinous masses. When the sternum and ribs were raised, the pericardium was the only object visible, the lungs being wholly obscured by it. There were some patches of recent lymph over several parts of the heart, which otherwise was healthy. The other organs presented nothing remarkable.

The occurrence of nervous symptoms, to such a degree, with pericarditis, is rare. Dr. Austin Flint* has seen three. Two died undiscovered until after death.

The symptoms accompanying this state are peculiar; maniacal often. The patient may be speechless, as ours was, or he may spit in every direction, as in typho-mania. He at times seems frightened, and almost as if in delirium tremens. He may have convulsions, or coma. It is usual to find no marks of inflammation about the brain. In the present case it was slight, and evidently was not extensive enough to have caused death.

The prognosis in any case is generally not so much from the inevitable mortality of the affection, as from its usual entire latency; so that extensive effusion often takes place without being recognized.

Of course, active leeching and blistering, or iodine over the heart, would be indicated in the early part of the disease, with a mild but sufficient diet, and subsequently stimulants, with wine and quinine, are of immense benefit. But at times paracentesis would really be called for. It is to be regretted that it was not tried in this case, as the enormous effusion that rapidly increased after I saw him, would seem to have indicated its propriety. There could have been no objection to the operation, and scarcely any danger in tapping such a large sac as the pericardium became at last. The operation has been done by Schuh, of Vienna, Dessault, Beau, and others in France. Strictly speaking, there is no more danger in opening the pericardium than in tapping the abdomen, or the pleural, or any other serous cavity. All the usual arguments against it, such as that we might strike the heart, might wound the internal mammary artery, that we

* On the Heart, &c.

could not draw off the fibrin, that the advantage would be only temporary, as the fluid would re-accumulate, &c., would become no arguments against the operation, provided we were perfectly sure of our diagnosis of a *large* amount of fluid.

TUMOR OF THE LARYNX REMOVED WITH SUCCESS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By SAMUEL CABOT, M.D.

THE patient, J. H. D., æt. 5 years, a healthy, well-developed boy for his age, was observed to have hoarseness, which began about a year since, and gradually became worse, the breathing showing signs of obstruction, without cough at first, but later some cough was occasionally present, which was attributed to bronchitis. About eight or nine months after the first appearance of the hoarseness, he had an attack of what was called pneumonia, after which the hoarseness and difficulty of breathing somewhat diminished, continuing better until recently, when it became rapidly worse, so as to destroy the power of articulation.

Saturday, Jan. 7th, 1865. I was called to the country to see the child, who was said to be near death. I found him breathing with the greatest difficulty, livid, gasping, throwing himself about upon the bed, the head thrown back, &c.; in short, all the appearance of imminent suffocation. On introducing my finger into the throat, the edges of the larynx felt thickened and rounded. The chest was resonant upon percussion throughout. Feeling that the only resource was tracheotomy, I immediately opened the trachea at as great a distance from the larynx as I conveniently could, and introduced a large double tube, with a fenestrum in the outer tube. The relief was immediate and complete. I advised that the boy should be taken to the Massachusetts General Hospital at the earliest practicable moment, that he might be under my immediate care.

He came to Boston and entered the Hospital on the 10th, three days after the operation. He was put in a room well filled with steam, and put upon a nutritious diet, with internal use of iodide of potash, and frequent applications of a strong solution of tannic acid in glycerine to the throat and larynx.

On Jan. 12th I made an examination of the larynx with the laryngoscope, but owing partly to the irritability of the fauces and partly to my own inexperience in the use of that instrument, my examination was far from satisfactory. The only fact learned by it was that the edges of the larynx were less thickened than I had supposed from my previous digital examination. Under the continued use of steam in the air, applications of tannin, chlorate of potash, alum, and nitrate of silver in solution and in the form of powder to the

diseased part, and the internal use of iodide of potash, the patient apparently improved, and on Feb. 7th the steam was discontinued.

On Feb. 20th the patient was etherized, the tubes were removed from the trachea, and a large-sized metallic sound was passed through the larynx past the wound in the trachea, and withdrawn; still it was found that upon withdrawing the inner tube and stopping the orifice of the remaining one, the patient could not breathe through the larynx. He was sent to his home in the country, and the same treatment was ordered to be continued there.

On May 11th re-entered the Hospital, in order to have a different kind of tube substituted for the one he had been wearing. This tube was designed to pass up into the lower larynx, and to fit into another passing down in the direction of the trachea; the part designed to pass up into the larynx was made with a hinge, allowing the upper portion, which was made of two parts, resembling the upper mandibles of a duck's bill, to shut together, so that it could be easily introduced, and then expanded when within the larynx. It was found upon trial, that though it could be easily introduced and secured in place, the instrument projected too far into the larynx, and caused so much irritation that it could not be retained.

Hoping that the obstruction, whatever its nature, might have so far diminished under treatment that the patient could get along without any tube, I decided to allow the opening in the trachea to close and watch the effect.

As the opening in the trachea contracted, the breathing became more and more labored; the child's health began to suffer, he could not sleep, and the breathing evidently could not be carried on through the larynx, so that upon the 14th, three days after the tubes had been left out, I was obliged to re-introduce them, which I did by enlarging the opening upwards, so as to put it at a point somewhat nearer the larynx than it had been previously. After this several attempts were made to substitute the duck-bill tube, the mandibles having been shortened, but though it was borne for several days on one occasion, yet it was found not to answer, and was finally abandoned. Finding that my own attempts at laryngoscopy had failed to give me much light upon the nature of the obstruction, I called in Dr. H. K. Oliver, our accomplished laryngoscopist, who, after a long and patient trial, extending over weeks, including as it did the education of a child of 6 years in the art of showing his larynx, succeeded at length in discovering that nearly the whole larynx was filled up by what appeared to be a smooth, rounded tumor, growing from the whole posterior wall of the larynx, projecting forward, so that its anterior margin could not be seen, with no appearance of any fissure on either side of it, and precluding all hope of applying any wire-loop, or ecraseur, or other instrument for its removal. After consulting with Dr. Oliver, I scarified the tumor deeply with a curved knife, cutting on its convexity, and applied immediately

a saturated solution of nitrate of silver; this was repeated several times, but with no permanent benefit. Having exhausted all other means, I finally determined to lay open the whole larynx, and thus to gain direct access to the tumor. Accordingly, on the 18th of November, the patient having been etherized, the tube was withdrawn from the trachea, the skin and soft parts cut through, from a point about an inch above the upper margin of the larynx to the opening in the trachea. Then a bent, grooved director was carried through the opening in the trachea up and out through the opening above the larynx, being held carefully to correspond to the line of junction between the thyroid cartilages; a knife was pushed up along the groove in the director, dividing all the parts above it, thus splitting the larynx its whole length; the sides were then pulled apart by vulsella, and held thus by aids. But little blood was lost, and on sponging out the blood the tumor was seen, occupying the posterior internal surface of the larynx, covering it completely from side to side, and almost entirely from top to bottom, and projecting forward so as to almost touch the anterior surfaces.* The appearance and character of the tumor was quite different from what I had been led to expect from the appearances presented by the laryngoscope. Instead of a smooth, rounded, solid mass, such as I expected to find, and which I had hoped to seize with forceps and to dissect out with a knife, I found a mass resembling half a raspberry, with papillæ more pronounced and distinct; in short, a columnar, epithelial, wart-like growth, very friable, giving no hold to forceps, and breaking with the least touch. This I snipped off with curved scissors, after which I removed two firmer masses from the fossæ, and then having dried the surface, I rubbed it over very thoroughly with solid nitrate of silver. I then secured the thyroid cartilages together with a single stitch, and brought the skin together with sutures down to the margin of the opening in the trachea, into which I again introduced the tubes. The next day, the boy was up and playing with his toys; he said his throat felt sore, but made little complaint of it.

Nov. 23d, five days after the operation, he could bear to have the outer opening of the tube stopped, and could breathe with but little difficulty through his larynx. He was sent home to get the wound healed and the soreness removed, then to return and have the tubes taken out.

His wound soon healed and the soreness disappeared, and his mother, who had been directed to stop the tube frequently in order to accustom him to use his larynx which had been disused for nearly a year, reports that he often goes with a cork in the tube from the time he gets out of bed in the morning until he goes to bed at night, and without the slightest inconvenience.

Soon after this report was made by the mother, the boy took a severe cold, with cough, profuse mucous expectoration, &c.; this attack kept him at home until Jan. 2d, 1866, when he re-entered the

Hospital, and although he had not recovered from the cold, I removed the tube from the trachea. The orifice closed in about a week, his breathing becoming easier day by day, and voice gradually returning, so that he could speak in a loud whisper, could whistle, and blow with a strong and prolonged current. Before he went home, Dr. Oliver examined his larynx with the laryngoscope, and found it apparently free from disease, and with an opening of the natural size.

The microscopic examination of the tumor was made by two gentlemen, experts in microscopy, to one of whom was committed one of the firm masses removed from the fossæ, and was reported by him to consist of glandular and fibrous tissue; to the other, a part of the wart-like growth was given, and he reported that it consisted of epithelial and fibrous tissue.

About a week after this report was read to the Society, I was sent for to see the child, as he was very ill, with cough and difficulty of breathing, supposed to be pneumonia. When I saw him, I found that the pneumonic symptoms had disappeared; he had slight cough and some expectoration, but the breathing was labored, with a tracheal sound, and the passage of air through the trachea was not sufficiently free to support life, though there were no signs of imminent suffocation. Accordingly, I cut down in the old cicatrix and opened the trachea, which appeared much narrowed at this point, and covered with pediculated granulations, some of which were cut off by my knife, and some torn off by the tube on inserting it; they resembled very closely the peculiar growths seen in a case of disease of the larynx following caustic ammonia, and of which the tongue and larynx were shown by Dr. H. K. Oliver on the same evening that my paper was read.

I think that the present obstruction is wholly at the point in the trachea where the tube was so long worn, and is caused partly by cicatricial contraction and partly by the pediculated outgrowths of which I have spoken, and that this condition of things is mostly due to the long presence of the tube; moreover, that if the larynx had been opened at the first and the tumor excised then, the result would have been the perfect success which I had supposed I had reached.

CHOLERA.

QUERIES BY A PRACTICAL MAN (SUGGESTED BY THE LAST NO. OF THE JOURNAL).

[Communicated for the Boston Medical and Surgical Journal.]

IF "the disease cannot be communicated from one person to another even under circumstances of the greatest intimacy," how can it be conveyed by the clothing simply? If "the disease travels no faster than men travel," will keeping all men at home put an end

to the disease? If so, is such restraint practicable? "It may come to us by railway" as well as by ship; true, the foot passenger may unconsciously take it along with him;—if he has a "trifling diarrhoea," will excluding him from privies and water-closets, and driving him to street corners or the road-side, leave fewer "germs which may give rise to a deadly epidemic"? This is not the first time the privy-hole has been charged with communicating disease! But suppose cholera is communicated per anum exclusively (Robin says the *stomach* is not disturbed by having cholera evacuations put into it unless overloaded), how does this "afford a good explanation" why "the disorder [disease?] is more active on lines of travel by water than by land"? Is it "the fact"? Are not water-closets more thoroughly washed at sea, as a general rule, than common privies on land? How is it in tropical countries, where they have no privies or water-closets, and resort chiefly to the thoroughfares? Where shall "cholera stools" be emptied, if it is such "great imprudence" to empty them "into common privies, gutters and sewers"? What are "suitable disinfectants," not such as may destroy smells merely, or substitute one odor for another, but such as will with any certainty destroy the "germs"?

If, unconscious of their condition, and consequently unobserved by health-officers, "persons so affected may doubtless travel from one place to another, without serious development of the disease, and leave behind in privies and water-closets germs which give rise to a deadly epidemic," what becomes of general laws however stringent? These are *practical*, not "abstract questions," naturally arising from the positions and language of those who maintain "*that the disease is portable*" but "*it is not contagious*, according to the common understanding of that word,"—*portable*, and "communicated through the evacuations of those infected with it, and in this way only"! Have they no stronger grounds for quarantines in New York than these?

One more query—which is the patient most in danger from, the disease, or the doctor who thinks he must immediately "go to work with dosing and friction, with strong sinapisms over the entire bowels," and a gallon ("cong. i.") of rectified spirit containing seventeen and a half ounces of capsicum, lobelia, &c. &c., "by enema as well as by the stomach"—and a multitude of other similar things too numerous to mention?

A "PRACTICAL" PHYSICIAN.

POISONING BY PHARAOH'S SERPENTS.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Observing your excellent article in the last number of the JOURNAL on the injurious effects which may result from the inhalation of poisonous gases set free by the combustion of "sul-

pho-cyanide of mercury," in the form of the new toy, the "eggs of Pharaoh's serpents," I beg leave to give the particulars of a case that came under my observation a short time since in Washington, D. C. The eggs being, as you say, one of the fashionable sensations of the day, are introduced into the drawing rooms and nurseries of many of our citizens, who are in a measure ignorant of their true character, and who may realize the fact only when serious mischief has been done.

A gentleman of my acquaintance, who has been troubled with a slight bronchial affection for several months, ignited one of the "eggs" in a close room, and while watching the singular appearance of the mellone slowing exuding from the apex of the cone, was seized with vertigo and asphyxia, and, losing consciousness, fell to the floor, the flame from the burning "egg" igniting a portion of his clothing. He recovered in a moment, but suffered with an aggravation of his bronchitis for several days, accompanied with severe hemicrania.

I have heard of another case similar to the above, in which a child was partially suffocated by the obnoxious gases.

East Greenwich, R. I., Jan. 22d, 1866.

WM. S. ROWEN,
Act. Assist. Surgeon U.S.N.

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Circular No. 6. War Department, Surgeon-General's Office, Washington, November 1, 1865. Reports of the Extent and Nature of the Materials available for the preparation of a Medical and Surgical History of the Rebellion. Printed for the Surgeon-General's Office by J. B. Lippincott & Co. Philadelphia. 1866. 4to. Pp. 166.

THIS report comprises two communications to the Surgeon-General: one from GEORGE A. OTIS, Brevet Lieut.-Col. and Surgeon U. S. Vols., in charge of the division of Surgical Records, Surgeon-General's Office, and Curator of the Army Medical Museum; the other from J. J. WOODWARD, Assistant Surgeon and Brevet Major U. S. A., in charge of the Record and Pension Division, Surgeon-General's Office, and of the Medical Section, Army Medical Museum.

In our present issue we propose to give our readers some idea of the first half of this report.

Dr. Otis, in the introduction to his communication, says that the extent of the materials for a surgical report is "simply enormous." "The returns are of as huge proportions as the armies that have been engaged in active operations for the last four years, and the result has been the accumulation of a mass of facts and observations in military surgery of unprecedented magnitude." He institutes comparison of a portion of these returns with the complete statistics of other armies to indicate the vast numbers dealt with. The French and British wounded in the Crimean war reached a total of 51,962. Par-

tial reports for three years of the rebellion return the wounded as 187,470. "Comparing the numbers of cases of some important injury, as, for example, gun-shot fractures of the femur, it is found that in the French Crimean army there were 459 such injuries, and in the English army 194, while over 5000 such cases have been reported to this office." "If one of the major operations is selected for comparison, as excision of the head of the humerus, the Crimean returns give 16 of these excisions in the British and 38 in the French army, while the registers of this office contain the detailed histories of 575 such operations." The surgical specimens of the Army Medical Museum number 5480, and it is richer, numerically at least, than the medicomilitary museums of France or Great Britain. "The value of these materials has been foreshadowed in referring to their nature and extent. It may be emphatically said that they throw much light on some of the great mooted points in surgery, that they comprise on some subjects, as, for example, on the question of the propriety of excising the head of the femur for injury, fuller data than are now extant in the entire range of surgical literature; and that it may be hoped, without temerity, that they include the elements for the solution of many great surgical problems."

Following these statements is a *résumé* of the various means that have been resorted to, to perfect the army and hospital returns, and to render them available for practical and scientific use, by the aid of artists, colorists, draughtsmen, engravers, photographers, &c. The reports for the first two years of the war and for the greater portion of the third have been consolidated, and "it is estimated that, by judicious condensation, one large quarto volume will include the statistics of the graver injuries, as fractures of the extremities and wounds implicating the joints or great cavities, and of the major surgical operations they have involved, the individual cases, their progress and results, being concisely recorded; while a second quarto volume could comprise numerical tables of the less serious injuries, an historical summary, and a discussion of the lessons derived from the statistical records of the war."

The report then continues in a brief review of the records of special wounds and injuries, of some of their complications, and of the operations which they have rendered necessary.

Under the head of "*Gun-shot Injuries of the Head*," we learn that of 107 cases in which the operation of trephining was performed, 60 died and 47 recovered. In 114 cases in which fragments of bone or of foreign substances were removed without the use of the trephine, 61 proved fatal and 47 resulted in recovery. In 483 cases treated by expectancy, the ratio of recovery was only 20.5 cent. The field operations of trephining, which were lost sight of, and in all probability terminated fatally, modify materially this favorable exhibit. The records corroborate the observation of Mr. Hewett that "the successful issue of a case of trephining for matter between the bone and dura mater is almost unknown to surgeons of our own time." "The museum contains eight examples of that rare and interesting variety of gun-shot fracture of the cranium in which the external table is unbroken, while the vitreous table is fissured and sometimes depressed." Two very striking illustrations of this phenomenon are figured, and the remark is made, "it is believed that this accident results from a

small projectile striking the cranium very obliquely, or possibly, in some cases, from a comparatively slight blow from a body with a large plain surface." Two figures are given of the infrequent instance in which a conoidal ball has split in halves by striking the skull at an acute angle. Hernia or fungus cerebri is mentioned in connection with 18 cases of fracture of the skull, with laceration of the dura mater and brain. Of these only four recovered, and that without operative interference, gradual contraction and cicatrization ensuing. Shaving off the mass or compression was invariably followed by a fatal result. It is observed that in the after-treatment of scalp wounds, spare diet, antiphlogistic measures and perfect rest were not considered as of essential importance, and that in cranial fractures operative interference rather than an expectant plan was adopted. The impression is that a larger measure of success has attended the operation of trephining in the late war than the previous experience of military surgeons would have led us to anticipate. Dr. D. W. Bliss has reported eleven successful cases after the use of the elevator or trephine; and even in those almost hopeless cases in which compression of the brain follows a gun-shot injury of the skull at a late date, instances of recovery are reported.

The chapter which we have thus epitomized is followed by briefer ones on "*Wounds of the Face*," "*of the Neck*," and "*of the Back and Spine*." Of this last class, we learn that in 187 cases of gun-shot fracture of the vertebræ, all but 7 proved fatal, and in only a single instance, where a musket-ball penetrated to the vertebral canal, did the patient recover.

Seventy-three per cent. of penetrating gun-shot *Wounds of the Chest* proved fatal. The management of hæmorrhage presented theoretical rather than practical difficulties. The results of "hermetically sealing" penetrating wounds of the chest, proposed by Dr. Howard, unqualifiedly condemn the practice. Only four cases of gun-shot *Wound of the Heart* came under treatment, and in only one instance did the patient survive twelve hours. In this case a small pistol-shot entered the left ventricle and passed out through the right auricle.

Twenty-six per cent. of penetrating *Wounds of the Peritoneal Cavity* recovered, and it is said that this unexpectedly large proportion includes only cases in which the diagnosis was beyond question.

Under the head of "*Gun-shot Wounds of the Bladder*" is the singular history of a soldier with an encysted musket ball buried in the corpus cavernosum, which he refused to have extracted. Also a case of lithotomy, in which a fragment of shell two inches long, seven eighths wide, and three eighths thick, covered with phosphatic deposit, and weighing 898 grains, was successfully extracted.

Gun-shot Wounds of the Lower Extremities are alluded to with considerable detail. The only recorded recoveries after gun-shot fracture of the femur involving the hip-joint, were those in which excision was practised. Under conservative measures, 93 cases of fractures, out of 387 of the upper third, had survived the injury a year or more, and are reported as recovered. Amputation was 8 per cent. more fatal than conservation, and this ratio holds good in all the regions except the upper third. In this chapter it is stated that the degree of difference in the injuries inflicted by round and conoidal balls has been exaggerated. "One curious effect, occasionally produced by the heavy

condoidal ball in striking the femur, has not been very generally noticed. The bone is fissured and comminuted, though less than is common, at the point at which the ball impinges, while at two or three inches above or below this point, according as the point of impact is below or above the middle of the shaft, a nearly transverse fracture of the shaft is produced."

Of 36,508 gun-shot wounds, only 27 belong to the category of *Wounds of Arteries*, and the remark is made that the "dread of primary hæmorrhage on the battle-field is confined to the inexperienced." We all remember the doctor and instrument maker who at the beginning of the war prevailed with several associations and State governments to furnish every soldier with a field tourniquet, of which they were respectively the maker and advocate.

Of *Sabre* wounds only 105, and of *Bayonet* wounds but 143, have been reported for the first three years of the war. Two thirds of these were received in action, the remainder were inflicted by sentinels and patrols. "After the first battle of Bull Run several of the wounded left upon the field were bayoneted by the insurgents. A patient, brought afterwards to Georgetown, received no less than fourteen stabs. A similar instance occurred after the battle of Fair Oaks. Later in the war such atrocities were infrequent." The cloven skull of a soldier is figured, who was captured at Gettysburg, and being unable to keep up with the column, a Confederate lieutenant, in command of the provost guard, cut him down and left him for dead by the roadside. He was brought in by a scouting party, and lived for six weeks, giving the above account to his surgeon. The cut in the skull was six inches long. An interesting case is also figured where a sergeant's sword, penetrating the nostril of a man attacking him, transfixed the sphenoid bone, leaving no external evidence of the injury, except a slight cut in the ala of the nostril. The man died thirty-one hours after the occurrence.

The statements with regard to *secondary hæmorrhage* are very interesting, and conclude with the following paragraph. "In reviewing the 650 cases of secondary hæmorrhage, it appears that, during the earlier part of the war, there were many surgeons who were not sufficiently impressed by the precepts of Bell and Guthrie, and who frequently treated hæmorrhage from gun-shot wounds by tying the main trunk at a distance from the wound, even when the bleeding occurred at a comparatively early period. Later in the war, however, it was the universal practice to endeavor to secure both ends of the bleeding vessel at the seat of injury, and some brilliant examples are recorded in which this was accomplished in wounds of the posterior tibial or popliteal, where limbs had become infiltrated and swollen, and the difficulties of the operation were immense."

The subject of *Pyæmia*, which closes this portion of the report, is disposed of in a few lines. The brevity with which it is spoken of leads us to fear that this great source of mortality has not yet been relieved of its obscurities or shorn of any of its dangers. The same observation applies to the remarks on tetanus, though the records furnish abundant examples of both these classes of diseases.

The second division of Dr. Otis's Report is devoted to the subject of *Surgical Operations*.

It appears that the histories of 13,397 amputations for gun-shot in-

jury have been recorded, and the final results ascertained in 9,705 cases. The law which renders amputation more and more dangerous as it approaches nearer and nearer the trunk, finds no exception even when tested on so large a scale. It may be interesting to quote the percentage of mortality attending amputation in the different regions.

Fingers and hand	- - - - -	1:60	Partial amputation of foot	- - - - -	9:24
Wrist	- - - - -	5:55	Ankle-joint	- - - - -	13:43
Forearm	- - - - -	16:52	Leg	- - - - -	26:02
Arm	- - - - -	21:24	Knee-joint	- - - - -	55:17
Shoulder-joint	- - - - -	39:24	Thigh	- - - - -	64:43
Toes	- - - - -	75	Hip-joint	- - - - -	85:71

The number of cases of amputation at the shoulder-joint reported is less than the number of cases of excisions of the head of the humerus. Of the former there were 458, of the latter 575, and the mortality of the amputations was 6.7 per cent. greater than that of the excisions.

But 9 cases of Pirogoff's amputation have been reported. The operation is said to have found but little favor, and it is stated that "Baron von Horowitz, Surgeon-in-chief of the Russian Marine, in his recent visit to this office, mentioned that Pirogoff himself had abandoned it, finding the segment of the os calcis likely to become necrosed."

Amputations at the knee-joint are proved to have been less fatal than amputations in the lower part of the thigh, and Hudson and other manufacturers of artificial limbs "distinctly declare, that the stumps give a base of support far better than any possibly to be gained in thigh-stumps."

Nine primary and fourteen secondary amputations at the hip-joint have been reported. Two of the former and two of the latter recovered.

Under the head of *Excisions* we learn that 26 cases out of 35 partial excisions of the wrist-joint recovered. Five and six inches of the diaphysis have frequently been removed with the head of the humerus, and in one instance where the head and upper third of the humerus had been excised, the remainder of the bone became necrosed and was removed, "together with the articular ends of the radius and ulna, and yet a limb was preserved which, with the aid of an ingenious apparatus, is very useful."

At the ankle-joint formal excisions have rarely proved successful, and operative procedures, it appears, should be limited to the judicious use of the gouge and bone forceps.

The knee-joint has been eleven times excised, with but two recoveries. The head of the femur, which, up to the time of the late war, had been eleven times excised with but one success, was removed 32 times with 4 recoveries.

The materials exist for arriving at definite conclusions as to the propriety of excision in the continuity of long bones. They are not yet analyzed, but so far as examined their evidence is unfavorable.

The ligation of the larger arteries has been performed 403 times. We note the following statistical data:—

Common carotid	37 died;	12 recovered.	Common iliac	3 died;	0 recovered.
External "	2 "	0 "	Internal "	2 "	0 "
Subclavian	28 "	7 "	External "	14 "	2 "
Axillary	21 "	3 "	Femoral	83 "	25 "
Brachial	53 "	11 "			

To perform all the vast amount of labor, of which these data are the
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evidence, a chapter on the *Medical Staff and the Materia Chirurgica* informs us that there were required "a surgeon-general, one assistant surgeon-general, a medical inspector-general, 16 medical inspectors, 170 surgeons and assistant surgeons of the regular army, 362 volunteer staff surgeons and assistant surgeons, 3000 regimental surgeons and assistant surgeons of volunteers, 2500 acting assistant surgeons, or physicians serving under contract, and 6 medical storekeepers"; or a total of 6,057 medical officers. How faithfully their duties were performed is shown by the fact that during the war thirty-six medical officers were either killed or died from wounds received in battle.

The facilities in the way of stretchers, hand-litters, cacolets, horse-litters, ambulances, hospital railway cars, hospital transports, hospital knapsacks, medicine paniers, field companions, medicine wagons, &c., are described, and the various articles figured which experience has proved to be the best adapted for their purpose.

The surgical portion of the Report concludes with some observations on *Anæsthetics*, from which we learn that seven deaths from chloroform have occurred, and that sulphuric ether was used in 30 per cent. of the operations in which anæsthesia was employed.

The subjects of *Erysipelas*, *Gangrene* and *Missiles* are treated of in a few brief lines.

Having furnished this too concise *résumé* of its contents, we can only remark that the perusal of this Report has afforded us great satisfaction and pleasure. It does not admit of criticism. It is so simply a memorandum of the riches of the Surgeon-General's office that no criticism is at present proper as to the method in which they are to be made useful to science and mankind. We are given an idea of what we may expect, and that in a manner which leaves us no reason to fear that the final accomplishment of the task by those who are entrusted with the work will fail in the realization. This comparatively brief document is highly creditable to all who have been concerned in the arrangement and preparation of the materials of which it is made. The pains, the system, the patience and the skill which deal with the statistics of disease and injury on a scale of such magnitude, must be unwearied. It is fortunate that men of such enlightened and scientific taste have been placed at the head of the medical department of our army. We trust, however, that the illustrations, of which there are 96, are not, in all respects, specimens of the best work which our engravers upon wood can supply. While some of them are very excellent, others, like those numbered 25, 28, 45, 61, 71, do no credit to the country. The zeal with which Dr. Otis enters into the work, and his familiarity with military and general surgery, are apparent on every page.

It is well to remember that Dr. Otis entered the service from Massachusetts as Surgeon of the 27th Mass. Regiment. Surgeon-General Barnes should receive the congratulations of all at finding himself surrounded by the elements necessary for a work on Military Surgery which can have no equal in the world, and compared with which the works of Legouest, Chenu, and the Blue Book of the English Government will be as Colburn's First Lessons to Pierce's Trigonometry.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, FEBRUARY 8, 1866.

REPORT OF THE SURGEON-GENERAL OF MASSACHUSETTS.

WE have too long omitted to notice the Annual Report of the Surgeon-General, which is none the less interesting and valuable that it has not to deal, like its predecessors, with the onerous and melancholy duties with which a state of actual war overburdened the bureau of which he is the honored and efficient head. To a large portion of the community it probably seems that this department of our State administration must naturally cease to be of any importance with the cessation of warfare and the return of our regiments from the field. All such persons, on reading the document before us, would be convinced that the office is no more a sinecure now than it has been at any time during the past four years; and any such reader could not fail to be impressed with the great value of the services rendered by the head of this department, and the thoroughness and entire devotion with which they have been performed.

The policy inaugurated by the late honored Executive of the State was not limited in its operation to the exigencies of active war, but provided for the care and welfare of the soldier on his return. These latter duties have added to rather than diminished the labors of the Surgeon-General's office, so that at the present time it is the scene of as busy activity as ever. The humane foresight on the part of the Executive which provided that the fullest information should be collected and put on record in this department, of every man from Massachusetts who had entered the service of his country, while it has been of unspeakable comfort and value to friends at home, has required unceasing activity of the clerical force belonging to it, and has engaged to its fullest capacity the unfailing interest of its head. The importance of this work in relieving the anxiety of relatives, in pointing out channels of communication with distant sufferers in government hospitals, in guiding the melancholy search of the bereaved for the priceless relics of those who had laid down their lives in their country's cause, and in a thousand other ways imparting information and giving counsel which it would have been next to impossible otherwise for the inquirers to obtain, cannot be overestimated.

In giving the history of his office during the past year, the Surgeon-General, as usual, does not fail to recognize the faithful services of all on the surgical staff of the State who have merited acknowledgment. Thus he gives in full the list of those surgeons appointed from Massachusetts who have received a brevet promotion from the United States Government. This honored roll we cannot refrain from copying in full, as a proof of a due appreciation of their services by the National Government, and as an evidence that the war through which we have passed has done something towards raising the medical officers of the army to something like their just position among military men. The list is as follows:—

<i>Brevet Brigadier General, U.S.A.</i>	Surgeon P. A. O'Connell,
Surgeon Charles H. Crane, U.S.A.	" A. M. Wilder.
<i>Brevet Major, U.S.A.</i>	" Frank Meacham.
Assistant Surgeon Warren Webster, U.S.A.	" Lincoln R. Stone.
<i>Brevet Colonel, U.S. Vols.</i>	" O. M. Humphrey.
Surgeon S. A. Holman, U.S. Vols.	" Joel Seaverns.
<i>Brevet Lieutenant-Colonels, U.S. Vols.</i>	" George Derby.
Surgeon David P. Smith.	" George A. Otis.
" Ira Russell.	<i>Brevet Major, U.S. Vols.</i>
" J. Theodore Heard.	Assistant Surgeon J. W. Merriam.
" F. S. Ainsworth.	<i>Brevet Captains, U.S. Vols.</i>
" John W. Foye.	Assistant Surgeon D. B. Hannan.
" C. N. Chamberlain.	" " J. W. Hayward.

To this list we must add the name of Surgeon Bowman B. Breed, U.S. Vols., breveted Lt.-Colonel, which was accidentally omitted in the Surgeon-General's Report.

In speaking of the State Militia system, we are glad to learn from the Surgeon-General that all the medical officers of this organization are hereafter to be subjected to a thorough examination before being commissioned, and furthermore that the rules and orders of the War Department for the Medical Department of the United States Army will be rigidly insisted on for the volunteer force of this State. These are excellent provisions, and will prevent the possibility of the responsible offices to which they relate being occupied on any sudden emergency by men whose only claim to hold them rests on personal considerations.

Other matters of great interest in this report which we can only cursorily allude to are, the operations of the State Military Agency at Washington, which has in charge all the personal interests of the soldiers in their relations to the General Government, the systematic and successful efforts made by the Adjutant-General and the Surgeon-General to provide employment for disabled officers and men on their return to civil life, and the prospective plan for an asylum for those unfitted for an active life. They add much to the interest of the document, and should be treasured as matters of valuable State history. A few facts here stated are of special interest. Thus, we learn that the number of Massachusetts soldiers who have died from disease, exposure and starvation in Southern rebel prisons, as reported at the Surgeon-General's office, is eighteen hundred and forty.

Since December, 1864, there have been received at his office one thousand special applications for information with regard to missing Massachusetts soldiers. The fate of six hundred and eighty-five has been ascertained, thus affording the necessary evidence for successful prosecutions of claims against the General Government.

Several interesting documents are appended to the Surgeon-General's Report, the last of which is a detailed list of Massachusetts soldiers who have died in rebel prisons, giving the rank, company, regiment, place and date of death, and number of grave in each instance, so far as was possible: an honored roll of martyrs, to be treasured so long as the record of the fiery ordeal of the last four years shall endure.

The whole report before us, like all its predecessors, is honorable in the highest degree to the officer from whom it emanates, and abundantly demonstrative of his fitness for the office which he holds and his fidelity to his trust.

The late Dr. Elisha Huntington, of Lowell.—At a meeting of the Middlesex North District Medical Society, held on the 31st ult., the following resolutions were reported and adopted :

Resolved, That in the death of Doctor Elisha Huntington we deeply sympathize with all classes of the community in the loss of a public man, whose universal and long lived popularity was the reward of sterling qualities of mind and heart, and whose numerous offices of high honor and trust were full of earnest and faithful endeavor and borne with the modesty of true merit.

Resolved, That as President of the Mass. Medical Society, and as President of this District Society, he brought to the discharge of their duties, the same devotion to duty and the same incorruptible integrity, impartiality and affability which endeared him to all.

Resolved, We especially reverence his memory as a Physician whose great experience, careful observation of disease, sound judgment and cautious habits of reasoning were ever at the service of all who desired his counsel ; whose active sympathy with the sick knew no distinction between rich and poor ; whose ambition for professional success never betrayed him into dishonorable practices ; and whose desire for self-improvement, which made him an accomplished man in his profession, also made him a zealous supporter of everything conducive to its honor and welfare.

Resolved, That while we offer our heartfelt sympathy to his afflicted family which has been deprived of so beloved a member, we feel assured that the memory of a life so faithful to all its duties will soften the pang which such a bereavement must bring.

Resolved, That the Secretary be directed to forward a copy of these resolutions to the family of the deceased, and offer them for publication in the *Boston Medical and Surgical Journal*.

JOHN O. GREEN,	} Committee.
JOHN C. BARTLETT,	
CHARLES A. SAVORY,	

Attest, GEORGE H. WHITMORE, *Secretary*.

In memory of the late Dr. Timothy Childs.—The following resolutions were read before the Berkshire Medical Society at the January meeting :

Resolved, That the members of the Berkshire Medical Society have heard with profound regret and sincere sorrow, of the mysterious death of Prof. Timothy Childs.

Resolved, That we desire to express our sorrow at the unexpected loss of one of our number, who was known among us as a warm personal friend, an able, judicious and honest counsellor, distinguished for his skill and attainments, an eminent teacher in the profession, and greatly beloved by all who knew him.

Resolved, That the members of this Society feel this bereavement the more deeply, not merely because it was sudden and unexpected, but because the deceased was a son who had received an early and careful religious education and professional training from an eminent father (now in the evening of life), whose extensive liberality, christian virtues and unfaltering devotion to the duties of his calling, have long since placed him at the head of his profession, and enshrined his memory in the hearts of all who know him.

Resolved, That we tender to Dr. Henry H. Childs and his deeply afflicted family our sincere and affectionate sympathies.

Resolved, That these resolutions be entered on our minutes, and that a copy of them be transmitted to the several papers of the County; to the *Boston Medical and Surgical Journal*; and to the afflicted father of the deceased.

HENRY S. SABIN,
OLIVER E. BREWSTER,
J. LELAND MILLER.

WILLIAM WARREN GREEN, *Secretary*.

The late Dr. H. F. Stevens, of Vermont.—Dr. Stevens, whose recent decease has been already announced in this Journal, was one of the leading members of the Medical Profession in his native State. He had at different times been President of the State and County Medical Societies with which he was associated, and as a member of the General Assembly in 1860 and 1861, and as Senator in 1862 and 1863, he showed himself an able and industrious legislator for the highest interests of his constituents, being especially known as an earnest friend of the interests of education. He had a large share in securing the adoption by his State legislature of a bill for the publication of the State Registration reports, to the compilation of which he gave careful and unremitting attention. He died at the early age of forty, not forty-eight as previously announced.

At an informal meeting of the Physicians of Franklin County, Vt., held at St. Albans, on the 17th of January, 1866, upon the occasion of his decease, on motion Dr. J. L. Chandler was called to the chair, and Dr. A. M. Brown, of Sheldon, was appointed Secretary.

On motion a committee of three, consisting of Dr. G. M. Hall, of Swanton, Dr. John Branch, of St. Albans, and Dr. A. M. Brown, of Sheldon, were appointed to adopt and present resolutions for the consideration of the meeting.

The committee submitted the following preamble and resolutions, which were adopted.

WHEREAS it has pleased Almighty God to remove by death Dr. Hiram F. Stevens, of St. Albans, in the prime of life, and in the height of professional usefulness, therefore,

Resolved, That we bow with deep humility and contrition of heart to this afflicting dispensation of Divine Providence; that he who ruleth all things that come to pass, doth not willingly afflict the sons of men, but in his beneficent wisdom doeth all things well.

Resolved, That in the death of Dr. Stevens the medical profession in this County has sustained an irretrievable loss in the person of an intelligent counsellor and zealous worker in the field of medical science, and a firm and abiding friend; and that the community in which he resided has lost one of its most useful members—a willing contributor to the advancement of public prosperity, and a real and ready public officer.

Resolved, That while we tender our heartfelt sympathies to his afflicted family, we humbly pray that He who tempers the winds to the shorn lamb will shield and guide them in this the hour of their deepest affliction.

Resolved, That a copy of these resolutions be furnished for publication to the newspapers of the county, and to the *Boston Medical and Surgical Journal*—also a copy to the family of the deceased.

Attest, A. M. Brown, *Secretary*.

Correction.—*Messrs. Editors,*—In the report that was given in the last number of the JOURNAL of two hydrocephalic skulls, I am sorry to say that there was a great mistake in regard to the measurements of Dr. Jeffries's specimen. Instead of 27 inches and $19\frac{3}{4}$ inches, I should have said $24\frac{1}{2}$ and $17\frac{1}{2}$ inches.

It has occurred to me that a measurement of the internal capacity of these skulls would give a better idea of their size than the external measurements; and I have therefore measured them according to Dr. Morton's plan (*Crania Americana*), rice, however, being used instead of white pepper. Of 52 Caucasian skulls, Dr. M. found the greatest, the smallest and the mean internal capacity to be 109, 75 and 87 cubic inches. The internal capacity of Dr. Jeffries's specimen is 188, and of Mr. Blaisdell's specimen 257 cubic inches. J. B. S.

Silver Wedding of the Surgeon-General of Vermont.—The friends of Dr. S. W. Thayer, Surgeon-General of Vermont, took occasion to commemorate the occurrence of the twenty-fifth anniversary of his wedding on the 6th ult., by presenting him and his lady with a table service of silver plate of over sixty pieces. In addition, other friends presented a number of other valuable articles of silver, and the Surgeon-General also received a gold watch of American manufacture, costing \$250, enclosed in a rich and heavy hunting case. These gifts were accompanied by a most cordial letter, signed by a large number of his friends, expressing the grateful sense of the donors of his faithful and efficient labors in behalf of the soldiers of the State during the late rebellion.

WE would call the attention of our readers to the circular of the Faculty of the Medical School of Harvard University, printed in this week's Journal, asking for information concerning all those who have at any time been connected with that School, who have served in the Army or Navy of the United States during the late rebellion. This movement has our most cordial sympathy, and it cannot fail of meeting with the fullest coöperation from the profession at large.

Disappearance of the Cholera from Paris.—The *Union Médicale* of the 16th ult., states that for some days previously no new case of cholera had occurred in Paris, either in the city proper or in the hospitals.

Epizootiæ in Indiana.—A correspondent of the *Cincinnati Lancet and Observer*, writing from Indianapolis, October 27th, 1865, says:—"The summer and fall of 1865 will long be remembered by both physicians and the people. A wide-spread epidemic of malarial poisoning has visited almost every part of our State, and to such an extent in some parts that sheep, hogs and poultry have seemed to die from it. One lady assures me that her chickens, being quite tame, would come to the kitchen in the morning and droop round the stove, and in the afternoon she would find them hiding in the cool, long grass, or among the bushes, and that they died with burning fever; and this calls to mind the subject of cholera. Is this a sign of its coming?"

Treatment of Cholera.—Dr. George E. Walton, in a letter from Paris, published in the *Cincinnati Journal of Medicine*, in speaking of Dr. Barth's lectures on cholera says:—

"He gave no particularly new ideas on the treatment. However, I here give you a prescription which has been used with much success in the hospitals. It is by Dr. Lisle, of Marseilles:—Sulphate copper, 75 grains: distilled water, 1500 grains. Make a solution. Of above solution, 22½ grains; laudanum, 10 drops; sweetened water, 1800 grains. Mix. Give every hour or two."

The English Cattle Plague.—Despatches from our Consul at Liverpool, dated Jan. 20, 1866, state that the cattle scourge is rather on the increase. He says that during the week previous to date, 9243 cases are reported to the authorities. Thus far upwards of 70,000 cattle have either died of the plague or been killed after taking it. This in reality forms but a small proportion of the actual loss, for hundreds of cases were never reported, and thousands are slaughtered prematurely and hurried to market before the plague attacks them. Vaccination was being tried as a preventive.

THE Galveston Medical College commenced its first course of lectures on the 4th ult. Dr. John H. Webb is Dean. There are nine professors.

The course of lectures in the Savannah Medical College was resumed on the 17th of November last.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 3d, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	36	34	70
Ave. mortality of corresponding weeks for ten years, 1856—1866	39.4	37.3	76.7
Average corrected to increased population	00	00	83.55
Death of persons above 90		1	1

ERRATUM.—In our last issue, page 17, 12th line from top, for "capsici baccati tr.," read *capsici baccati pulv.*

PAMPHLETS RECEIVED.—Introductory Address at the Miami Medical College, Cincinnati Nov. 1, 1865, by George Mendenhall, M.D., Professor of Obstetrics.—Annual Report of the Resident Physician of the Kings County (N. Y.) Hospital.—Alcoholic Medication. By R. T. Trull, M.D., New York.—The Eastern, or Turkish Bath, &c. By Erasmus Wilson, F.R.S. With Notes and Appendix by M. L. Holbrook, M.D.—Inoculation in Pennsylvania. By J. M. Toner, of Washington, D. C.

MARRIED.—In this city, 3d inst., Ferdinand H. Gross, M.D., of Pittsburg, Penn., to Miss Henrietta Daggett Williams, of this city.

DEATHS IN BOSTON for the week ending Saturday noon, February 3d, 70. Males, 36—Females 34. Accident, 1—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 2—disease of the brain, 3—bronchitis, 3—burns, 2—cancer, 3—consumption, 11—debility, 1—dropsy, 1—dropsy of the brain, 3—ecthyma, 1—epilepsy, 2—scarlet fever, 2—typhoid fever, 1—disease of the heart, 4—infantile disease, 2—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 9—marasmus, 1—old age, 1—paralysis, 1—disease of the prostate, 1—puerperal disease, 1—rheumatism, 1—smallpox, 2—disease of the spine, 1—disease of the stomach, 1—tumor, 1—unknown, 3—whooping cough, 1.

Under 5 years of age, 22—between 5 and 20 years, 7—between 20 and 40 years, 15—between 40 and 60 years, 10—above 60 years, 16. Born in the United States, 60—Ireland, 18—other places, 2.

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VOL. LXXIV.

THURSDAY, FEBRUARY 15, 1866.

No. 3.

CASES IN COUNTRY PRACTICE.—No. X.

By JOHN ELLIS BLAKE, M.D., of Middletown, Conn.

[Communicated for the Boston Medical and Surgical Journal.]

FIBROID POLYPUS OF THE UTERUS.

IN Vol. LXvii., No. 3, of this JOURNAL, I related a case of successful removal, by excision, of a large, non-pedunculated outgrowth from the inter-uterine wall. As was then remarked, the facts in that case furnished no exceptions to the truth of the observations of Dr. Baker Brown, of London, that the vascularity and vitality of such growths may be very much interfered with by gouging out a portion of their substance, and that they may be thus successfully treated. Besides other writings upon the subject, in part li. of *Braithwaite's Retrospect*, a third paper by Dr. Brown is referred to, in which he confirms by additional evidence the truth of his former positions, and suggests some improvements and modifications. He endeavors, for instance, to show that by merely incising the os uteri in such a manner as he describes, the hæmorrhage so common in these cases may be controlled, and the tumor afterwards destroyed. Yet despite all his teachings and those of others, and despite the evidence of some of the first names of the profession, as to the safety of excision, and the frequent real danger of the ligature, it is still quite commonly resorted to as being safer, and an endless variety of instruments to facilitate its application are to be found in many offices, or cumbering the show-cases of the shops. I may be merely repeating that which has already been better said, and I feel diffident in even venturing at all upon ground which has been, and is still, occupied by men so distinguished for their scientific attainments and large experience as those who make the diseases of women their special study. Still the humblest pen may do good by reiterating and pressing truth upon the attention, by asking of the experienced if the opinions it holds be founded upon truth, and by contributing its record of cases, few though they may be, and of themselves perhaps of small interest, to the common stock of evidence.

Those whose first idea, when a case of fibroid uterine polypus pre-

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sents itself, is its removal by ligature, are probably led to adopt it mainly by a vague fear of hæmorrhage, as a consequence of the adoption of any other plan involving the use of cutting instruments. "The ligature is safe," say its advocates, and the practitioner who perhaps would rather shrink from many a common surgical operation, feels no hesitation at entering upon one really *dangerous*, because he is only to use a bit of silk or wire. I say dangerous, because the destruction of these fibroid growths, especially if of large size, by the ligature is dangerous, if the testimony of many distinguished and experienced surgeons is to be believed. We might almost so characterize it on the evidence (were there no other) of Dr. R. Lee,* cited by West, in his work on "Diseases of Women," as a "most strenuous defender of the ligature," for he admits in 20 operations a mortality of 9, which West speaks of as more than double that of lithotomy, as high as that which occurs in placenta prævia, and higher than the mortality from malignant cholera. Says Dr. J. Marion Sims, of New York: "Removal of polypi by ligature is really a dangerous operation, resulting not unfrequently in pyæmia and death." It may be said, that could we obtain returns of all the operations of this kind in which the ligature was safely used, the side *per contra* of fatal results would seem very small. Were there no other way of removing more safely fibroid polypi, such returns might be considered satisfactory; as it is, it would appear, they are worth just about as much, and no more, as those adduced in favor of chloroform against sulphuric ether, drawn from the thousands of instances of the use with safety of the former anæsthetic. Statistics are but dry consolation for a bereaved family. What is the objection to the operation of excision? The danger of excessive hæmorrhage? West found no such difficulty in eight cases so treated. Velpeau gives 20, with the same result. Lisfranc but 2 in 165, and Dupuytren but 2 in nearly 200; yet all these three last-mentioned distinguished operators, according to West, "refer to cases of phlebitis, or peritoneal inflammation, leading to a fatal issue after the use of the ligature."

In connection with the foregoing remarks, and with the case before reported and referred to (Vol. Lxvii., No. 3), I would like to mention the two following.

Called to Portland, Conn., to see, in consultation, Mrs. W., represented by her attending physician to be the subject of a tumor, or enlargement of some sort, which, pressing from below upwards, partially occluded the vagina. From the vagina, however, had taken place during a few days before, a hæmorrhage so persistent and violent as to reduce the patient to an extreme degree of prostration. It was his opinion that this hæmorrhage depended upon a polypus of the uterus, but he had not been able to examine the case satisfactorily to himself, owing to the tumefaction below the vagina. I found this

* Ovarian and Uterine Diseases. London. 1853.

tumefaction to be caused by two enormous masses of intestinal concretion, of almost a stony hardness, and which could only be removed from the rectum by breaking down their substance with instruments, assisted by enemata. They consisted of a dry faecal matter, with undigested substances, but I think the nuclei of both were gall-stones. Proper temporary measures were then employed to arrest the hæmorrhage, and the patient, being much exhausted and very weak, was allowed to rest until the following day. The next morning the polypus, which, as had been supposed, was the cause of the bleeding, was removed by excision in the following manner. A loop of wire was passed over the pedicle, which was slender, but very short, and torsion was then easily effected, by twisting the wires, and also by turning the polypus with claw forceps. The next step was to divide the pedicle with long, blunt, curved scissors, guided by the forefinger of the left hand. No bleeding of any consequence followed, and the patient's recovery, though slow, was entire, and she has since enjoyed good health.

August, 1865. Called to E. Hampton, Conn., by Dr. Edgerton, of that place, to see, in consultation with him, Mrs. C. Some two years before this I had been called to see the same patient, who was then quite anæmic, and constantly afflicted with menorrhagia at each period. The opinion was then held that the hæmorrhage very probably depended upon uterine polypus, but the diagnosis was not at that time verified. As time went on, the lady often presented temporary fallacious appearances of health, and was so far restored (it was thought by her family) that a consistent, patient investigation and treatment of her case was not invited by them. I had almost lost sight of the case, at the time of receiving the call above noted, and I was much shocked to find Mrs. C. in so critical a condition. Anæmic to the last degree, she had, moreover, a sallow, cachectic look, which did not argue well for her recovery. On examination, I found a firm, elastic tumor filling the vagina and almost projecting beyond the labia. The pressure was not as great upon the adjacent parts from the elasticity of the tumor, but it filled the pelvic space as much, as a foetal head of ordinary size would at term. I found she had been operated upon some little time before, by a surgeon of reputation and skill, who had removed by the ligature quite a large mass. But the pedicle upon which the ligature had been applied was either independent of the uterine connections of the present outgrowth, or was implanted upon it through the os. Whichever was the case, the tumor now present had been subsequently extruded. The abdomen, in consequence, over the uterine region was so much flattened that the opinion was even hinted at that we might be dealing with a case of *prolapsed uteri*. This idea was not sustained on examination.

The patient's condition was as bad as it could well be at this time. Reduced by loss of blood to a fearful extent, her slender remaining strength was being slowly sapped by the vitiated air of her room, for the outer coverings of the polypus were sloughing, and in spite of the

greatest care the foul discharges from it were very unpleasant. The indications were simple enough, but it was a little hard to say what plan of treatment would best fulfil them. The polypus, the foul focus of irritation, must be removed, and that speedily if the patient was to survive; but it was equally clear she could bear no more loss of blood. It was found impossible, both by myself and others, to pass a ligature over and beyond the tumor, so as to include it, neither could the finger be forced over it, so as to reach the pedicle. In view of this, August 6th and 10th, operations were practised, with a view to diminish the vitality of the growth. A ligature was passed through it, and a large core the size of a hen's egg removed from it. The hæmorrhage from the bottom of the hole thus made was not allowed to continue, and it was readily checked by tampons imbued with persulphate of iron, but it was of a kind and character which made it evident that further cutting was then inadmissible. There were some things about the whole appearance of the case which made me a little fearful of malignant disease, and I was very glad that no abnormal elements were found, on microscopic examination, in a section from this core thus removed, and, August 13th, it was decided to run all risks and remove the tumor at once by excision. A Sims speculum was introduced, the mass seized with claw forceps, and removed piece by piece. *There was no bleeding* now of any account at all. Vessels of good size could be seen as the cutting approached the centre of the mass, but when cut across they did not bleed. They contained coagulated blood. What is more, the coagulation had begun, I feel sure from the appearances, from the core where the iron had been applied. At last enough was cut away to give a fine view of a broad, white pedicle growing from one of the lateral walls of the uterus. The os, dilated by the passage of the tumor, had not again contracted upon the pedicle, and it was not difficult to divide it close to the uterine wall with curved scissors, guided by the finger. The patient's recovery was very slow, and for a time doubtful. She was constantly attended by Dr. Edgerton after the operation, and has now, February, 1866, got entirely well, having a good healthy color, and weighing, although not of large frame, 146 pounds.

It would be absurd, of course, for me to generalize upon such slim data as my own experience of these cases has furnished, but in view of that of others will it not do at the present time, with all the facilities which modern surgical invention has furnished, to make excision, subject to certain *preliminary* precautions, the rule for the treatment of fibroid polypi, and let ligation be the exception? Will it not be safe to take, as general rules of practice, something like the following?

1. If the polypus be still within the uterus, dilate the os and take a core from it, or lacerate its capsule, applying ferri persulph. Its vitality being destroyed, it will cease to act as a violent excitor of hæmorrhage.

2. If it have been extruded, and be small, with a slender pedicle, use torsion, and excise in twenty-four to forty-eight hours afterwards.

3. If large, remove a large conical core whose apex shall reach the centre of the mass, fill the cavity with persulphate of iron, forced in by tampons of cotton, and excise in three days, removing piece by piece cautiously, with curved, blunt scissors.

GUN-SHOT WOUND OF THE BRAIN—RECOVERY.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—On the 17th of May, 1863, I was called to see A. G., aged 7 years, who had been accidentally shot. I found that my patient had been wounded in the centre of the frontal bone, sixteen small shot having entered the brain, making a ragged, singular hole in the bone, nearly an inch in diameter. My little patient was comatose; and believing the wound to be a fatal one, I simply dressed it, removing several fragments of bone, and left, saying to the parents that she could not recover.

To my great astonishment I learned, some days after, that the little girl was still living, and was being treated by a sort of quack, who was the family physician, and three weeks after the accident he called me into his office to see the patient. I found her looking remarkably well, with intellect entirely unaffected, and acting and conversing (her parents said) quite naturally. The wound looked perfectly healthy, except one or two white points, which the quack was attempting to remove with nitrate of silver, but which I saw at once were bone; and taking a pair of forceps I readily removed ten spiculæ, the largest of which was nearly three fourths of an inch long.

Since that time I have not seen the child, but learn that she has entirely recovered, and that the scar is the only remaining indication of the injury.

Thinking the case might be of sufficient interest to merit publication, I have hastily written the above for your use, should you think it available.

Yours truly,

J. O. HARRIS, M.D.

Ottawa, Illinois, January 17th, 1866.

ALUMINIUM AS A BASE FOR ARTIFICIAL TEETH.

[Read before the Massachusetts Dental Society, Jan. 8th, 1866, by N. C. KEEP, M.D., President, and communicated for the Boston Medical and Surgical Journal.]

DISCOVERED by Wöhler in 1828, aluminium was known only by name until the genius of Deville, aided by the patronage of the French Emperor, overcame the obstacles which up to that time had proved insurmountable, and presented to the world the pure metal in a form available for use. At first it was produced in small quantities and

at very high cost. I well remember the first specimen which came across the Atlantic, which cost more than its weight in gold.

The announcement of a new metal available for practical purposes made a great sensation throughout the civilized world. Every cabinet wanted a specimen, and for a long time the whole production was absorbed for this purpose. Still there were forecastings as to the uses to which this metal might be applied, when by improved processes it should become abundant and comparatively cheap. I well remember my own high hopes that I might use it instead of gold, and my disappointment when I found I did not possess the knowledge of the peculiar laws by which it could be made into plates, &c., and after a moderate effort I laid aside my specimens.

So far as I know, Dr. C. A. Fowler, of our own State, has the enviable distinction of being the first by his perseverance to actually overcome these difficulties, and to him I am indebted for the metal in a ductile form and the plan of using it without solder. In his process all the different parts are united by rubber, which has first been combined with comminuted aluminium. With this material all vacancies are obviated, desirable forms made, and the unity of the piece secured. When vulcanized and polished, it has a metallic lustre and an approximate resemblance to the metallic plate. The use of aluminium by jewellers, and their appreciation of its value, are sufficiently well known.

The advantages of aluminium in dentistry are:—

1st. It is sufficiently strong and unyielding (having almost no elasticity) to meet all the forces which it may be legitimately called upon to resist.

2d. Its very low specific gravity, 2.50, only $2\frac{1}{2}$ times heavier than water, enables the dentist to offer to his invalid patient a lighter set of teeth than by any other material now in use for base.

3d. Aluminium is not discolored by sulphuretted hydrogen, and is not acted upon by any acids which are likely to be found in the mouth, or by any of the secretions of the mouth, and does not discolor in use.

4th. Aluminium is a pure metal. All alloys are to some extent subject to galvanic action. It is well known that while gold plates were generally used, intelligent and conscientious dentists made their gold plates not less than three fourths pure gold and one fourth alloy, and would have used pure gold had it not been too soft for plates. Ignorant and unscrupulous dentists often used a much larger per cent. of alloy, to the great discomfort of the wearer. Aluminium for plates should be pure; there is no excuse for introducing any alloy. They will thus be entirely free from the galvanic action incident to alloys.

5th. Aluminium is entirely innocuous. Neither the metal nor its salts can become poisonous. Plates of aluminium are easily brushed and kept free from foreign accumulations.

6th. They have the advantage over rubber in being strong and thin, taking up very little room in the mouth. Being thin, they do not give the impression of heat, which troubles some persons very much.

7th. By using aluminium we avoid the bi-sulphuret of mercury, which, though not a very soluble article, has excited solicitude in many minds; and as it constitutes about one half of the weight of "red rubber" we would shun even the appearance of evil and let it alone.

In conclusion, we may congratulate the public that a new article is presented for their choice in artificial dentistry that fills more of the conditions desirable than any other at present or heretofore in use; and we confidently expect that those who have suffered from the weight of their artificial teeth, or from the galvanic action of mixed metals, or the yielding of elastic materials, or from uncomfortable thickness of rubber, or from the fear of injury by reason of the poisonous coloring matter used in red rubber, or from the sensation of heat occasioned by the rubber, which as now used is a bad conductor of caloric, or those who may desire a more artistic, highly-finished, easily cleansed, agreeable and comfortable substitute, will have occasion to thank M. Deville for producing aluminium in available quantity, and Dr. Fowler for his successful perseverance in bringing it into practical use for dental purposes.

To the dentist who should ask whether he had better abandon all other articles and attach himself to this only as a base for artificial teeth, I would say, this is not adapted to cheap dentistry. In the first place, the use of aluminium for dental purposes is patented, and we have no reason to think this patent "unjust or illegal." Then the labor and care in working being much greater than is now generally bestowed on rubber work, if you are contented and your patients are satisfied, these improvements will do you no good. But to the lover of progress, aiming at perfection, and to those who do not shrink from labor for the best "substitutes" which can be produced, I cordially recommend a trial of aluminium.

ON THE TREATMENT OF VIRULENT AND ZYMOTIC DISEASES.

By H. HJALTELIN, M.D., Inspecting Medical Officer of Iceland.

WHAT is now-a-days our general treatment of virulent and zymotic diseases? I think for the most part only symptomatic; many specifics seem altogether amongst the great physicians in some discredit. This is no doubt the contrary state to the old maxim, especially that of the iatro-chemical school. The universalia of Paracelsus, van Helmont, and others of their followers, are now only laughed at; they had three or four great universal medicaments, viz., *iron*, *sulphate of copper*, and *nitrate of potash*, besides their many

renowned organic specifics. All this is now looked upon as a mere superstition and twaddle; good for nothing; and only worthy to be buried in oblivion. The maxim of *Celsus* was—"Non interest scire, quid morbi sint, sed quo modo curentur." The maxim of our time seems to be exactly the reverse of this maxim, viz., "interest scire, quid morbi sint;" and it is from this principle that the many microscopical investigations and the most exact chemical experiments on dead bodies have been instituted of late with the utmost accuracy.

Alas! poor sons of *Æsculapius* as we are, what is come out of all this? The French physicians have some time ago told us, that the Roman physicians, two thousand years back, were fully as able as we are now, to cure diseases, and a very ingenious and able German physician has some years ago told us, that we in vain laughed at the old alchymists, who, according to his view, knew very well what they intended, and had more correct ideas of physic than we are inclined to believe in our time. This view is in some way supported by the great chemist *Liebig*, who, in some of his chemical works, is looking on them with no small esteem, while he, in his last chemical letters, is speaking of our healing art with considerable contempt. In the meantime this is not all; the method of our science is now still further attacked, not only by the homœopaths, but we have the mortification to see one of the most renowned journals in the world, the *Times*, speak of our healing art, not only with great distrust, but even with contempt. "Medical men cannot tell us," says the *Times*, "with any strictness what the type of disease is which is decimating our flocks and herds."

They are not agreed upon, whether the disease is imported from Russia, or whether it is the result of some subtle poison in the atmosphere called into sudden and violent action by atmospheric influences. "As they differ as to the disease, so also they differ about the remedy." This is, no doubt, a melancholy state, and a frightful stroke, not only to the medical men of Great Britain, but also to the high-minded British nation.

It has fallen to my lot to have a great deal to do with some of the most frightful contagious diseases of our time, not only in men, but also in animals, and I have never been in the slightest doubt what to do; my principle has always been to destroy the contagious matter by the most effective disinfecting compounds, using at the same time such specific remedies as I have thought most fit, according to the atmospheric influences and other circumstances. I will shortly tell my experience, which, in truth, has been a very extensive one.

In the years 1848 to 1853, including the former year, I was appointed as superintendent physician to the quarantine establishment near Copenhagen; my duty was to defend the Danish capital from the threatening Asiatic cholera, which in these years often raged fright-

fully in the surrounding countries, especially Germany and Sweden; the cholera was then sometimes raging very near us, as in *Stettin*, *Lubeck*, and many other places in the north: the nearest infected place was, at one time, *Malmöe*. Steamers were then running from and to the quarantine establishment in twelve to twenty hours, and many passengers came to the quarantine, not only with severe symptoms of choleric diarrhœa, but also with the first symptoms of the advancing disease itself. Disinfecting compounds, especially chlorine gas, were daily made use of in the most consequent manner, whilst I, at the same time, stopped every diarrhœa with the most effectual remedies, amongst which I used tannic acid and sulphate of copper. No deaths occurred among the many thousands that visited the quarantine in the aforesaid period, and no cholera was then introduced into the capital of Denmark. During the winter of 1853, the quarantine for the kingdom of Denmark was abandoned by law, according to the advice of the Diet (*Rigsdag*); but about four months afterwards, the Asiatic cholera made its first appearance in Copenhagen. I did not, in the beginning, trust my own eyes, because I was, with some others, accustomed to the view that cholera was, by some unknown causes, prohibited from making its ravages in the Danish capital; but soon I got convinced of the real truth, and then I saw it was the same plague which I for some years since had seen in Berlin. The people of Copenhagen were struck with astonishment, exclaiming, "Oh! that we had not abandoned the quarantine! It has surely saved us for many years; but, now, since it is abandoned, we are to have the plague." Before the outbreak of cholera, I was determined to visit my native country, and the vessel which was to carry me sailed two weeks after the appearance of the cruel Asiatic guest. I had, some years back, written a little pamphlet on the preservative remedies for cholera, in which my opinions about some disinfecting compounds were exposed, and in which I had shown that the cholera fright was nearly as dangerous as the cholera itself. I told some of my medical brethren that the best course to take was, according to my conviction, to stop the diarrhœa as soon as it came on, to use strong disinfecting compounds, and to keep the cholera fright down amongst the people as much as possible.

When I had arrived in my native country, I had to deal with another frightful contagious disease amongst the sheep; it was a sort of plague that in some places had nearly decimated the flocks, and had lasted for some years. The Danish Government, which was aware that I took much interest in the veterinary science, and had for that purpose for some time visited the veterinary school of Copenhagen, under the guidance of that excellent veterinarian, Professor *Wiborg*, asked me to do what I could against the plague amongst the sheep in Iceland. After having made some autopsies, I wrote a statement about the disease to the Danish Government, and this having been laid before the College of Veterinarians of Copenhagen, was

afterwards printed in the *Veterinary Journal*, with very flattering remarks on my description of this plague. The college animated the Government to let me continue my measures. And so I continued to look for new autopsies; but I am now not a little surprised to read of nearly the same pathological conditions in the description of the raging rinderpest in England as I then found in the dead sheep here.

I had, in my aforesaid statement, tried to show that the then raging sheep disease of Iceland was in its nature a most dangerous and contagious *sheep-typhus*, which, according to my conviction, ought to be treated with effective disinfecting remedies. The chlorine gas was now again employed in the most strict manner, the sheep stables were to be filled with that vapor, and the sulphate of natron (salt of Glauber) was administered to all sheep where the plague was raging, in order to clean the intestinal canal effectually. The salt of Glauber was often mingled with sulphur (about half an ounce to two ounces of the salt of Glauber) with the best effect. I looked upon these remedies as true preservatives, which ought to be administered as soon as possible, and given to all the flock where the disease was raging. The effect was really wonderful, and the frightful disease decreased rapidly in all the flocks where this treatment was followed. The belief in both those remedies is still so strong amongst many peasants, that I annually am getting letters from very remote parts of the island, convincing me of its reiterated efficacy. Unhappily enough, was this frightful disease after some years followed by another far less dangerous complaint, viz., the scab of the sheep, which, in the former century, during sixteen years had made considerable ravages in this island, but was supposed to have been stopped by an extensive slaughter of these animals. In the meantime, this slaughtering cure was then in some measure followed by a frightful famine, which nearly decimated the people themselves.

In the beginning of the new sheep scab my advice was asked, and my answer was, "You must not think to stop this disease by slaughtering the sheep; nobody can know how far it already may be spread, and it is, at all events, quite curable." I then advised the inhabitants to make a bold use of one *specific* remedy against this complaint, and this was the scab-bath of *walze*, which I had seen used in other countries with perfect success. In vain I told my countrymen this; they would not believe me, except very few of them. A general public clamor arose: "We have got an intractable disease into our country, like that scab disease of the former century: it is a great plague, quite incurable; it is come from England, like the scab plague of the former century; slaughter is the only remedy." This was the general talk. But to this I answered: "Do not disbelieve in the veterinary science; the sheep scab is quite tractable; we have a specific remedy against it. The disease is not imported; it is only a higher degree of the well-known milder scab of these animals, which, on ac-

count of the great heat and dry weather of the last summer (this was in 1855), that has been extremely much favoring the evolution of the *acarus scabiei*, has thus become an epizootic." The governor in the south was of my opinion, but the governors of the west and north part of this island strongly opposed us, regarding a general slaughter of all affected and suspected animals as the only admissible remedy. A general slaughter of no less than 138,000 sheep then followed, the greatest part of which were only suspected, but not affected at all. The fear for the contagion amongst the people now went to its highest degree, and reminded one of that extreme fear for the Asiatic cholera contagion when letters and newspapers were believed to spread that disease to uninfected localities. In the meantime, some people who believed in my opinions also about this disease began to cure their sheep with the remedy of walze, and were completely successful. By this, two parties arose amongst the peasants—the curing party and the slaughtering party. The latter party was strongly assisted by the governor of the west and the governor of the north, who, in an open letter, declared the disease to be the most intractable plague introduced from England. The matter came to the decision of the Danish Council, which, after a conference with the veterinary college, decided for my opinion. The King of Denmark himself sent his chief veterinary physician, the Professor Ischerning, a very learned and practical veterinarian, up to us, followed by the most popular Icelander, the Chairman of the Althing, and some other veterinarians. The Danish Government ordered to stop the slaughter, and the curing principle was introduced in all places where any scab was to be found. Many of the inhabitants were reluctant against the measure, and are still so obstinate that they must be compelled to do their duty. It was now found that the *acarus scabiei* of the sheep was no new animal introduced from England into this country, for it had been found in the northern part of this island in considerable quantity for more than forty years back, and this was stated by the Professor Ischerning from a very nice picture of this little animal.

The curing principle is now universally in use against the sheep scab in the southern part of this country; and although there may still be found some blockheads who are unwilling to cure their flocks, the *specific virtue* of the walze remedy against scab is established, and the sheep flocks are increasing to a considerable extent.

In the years 1858–61 a frightful contagious typhus raged all over this island, as may be seen from my description of that malady inserted in the *Edinburgh Medical Journal*, 1863, p. 217, and I then again took refuge in my usual disinfectant treatment, and it was executed on many hundreds of patients with great success. The belief in this treatment is grown so strong amongst the population that they look upon it as quite specific in this disease.

During this summer a dangerous puerperal fever broke out in the

western part of our country. The physician there asked my advice and counsel, and I advised him to make bold use of chlorine gas in all the houses where this malady had broken out, and ordered him to have all utensils and clothes which had been in contact with the sick or their attendants washed in chlorine-water. This was done, and the physician now writes to me that the fever has been instantly much mitigated, and no deaths have occurred since this measure was brought into execution.

It would lengthen too much these few remarks if I were to expose my humble individual opinions on virulent and zymotic diseases, and I will only make the remark, that it seems to me that the name of zymotic disease is most applicable to such maladies, where we, by induction, seem justified in accepting an agent like that of fermentation, putrefaction, or of a catalytic nature. I know that the learned Mr. Simon, in his admirable lectures on pathology, scouts the notion of any true fermentation in virulent and zymotic diseases; but I have always thought that the great chemist, Liebig, has only used these words analogically, to signify some still hypothetical subtle stuff, causing, like diastasis, an unusual but very destructive metamorphosis in some albuminous compounds of organized bodies. The deleterious actions of such a promoter may, according to my view, be stopped by many chemical compounds, as fermentation and putrefaction are unquestionably counteracted by chemical remedies, and, according to the empirical facts of medicine, we seem justified in calling them disinfecting remedies. They are also, in more or less degree, parasiticia, and belong, for the most part, to the metalloids or metals; the most effective seem to be chlorine, bromine, iodine, nitrogen and sulphur in their chemical combination with oxygen, hydrogen, and some of the metals, as iron, copper, mercury, zinc, calcium, and formyl. The chlorine gas, muriate of iron, sulphate of iron, sulphate of copper, iodoform, and muriate of zinc, have all been tried by me in several zymotic diseases, and, as it seems to me, with good success. Thus, I have tried chlorine gas, iodoform and muriate of zinc in typhus, as well in men as in animals, with no small success; chlorine gas, sulphate of iron and sulphate of copper in cholera, dysentery, diphtheritis, and adynamic pneumonia; chlorine gas and muriate of mercury in puerperal contagion; and muriate of iron in epidemic erysipelatous inflammation. It is evident that, if the morbid cause of an infectious disease has already produced extensive pathological destruction in men or animals, then the disinfecting compounds will be of little or no use; they must be had recourse to in the outset of the diseases; for they are, for the most part, aimed against the real cause of the virulent diseases, and not against the pathological products resulting from such a cause. "*Sublata causa, tollitur etiam effectus.*"

The disinfecting remedies of vegetables are certainly far inferior to the organic compounds; among the most trust-worthy of them are

charcoal, ethereal oils, camphor, some aromata, creosote, and empyreumatic oils and fluids. In miasmatic diseases, whether of an atmospheric or telluric origin, some of them, as chinine, salicine, coffeine, &c., are of great value; but that they can destroy real virulent and zymotic diseases is still very uncertain.* Many remedies of this great class are excellent parasitocidia, and their neurosthenic, sedative and anti-spasmodic virtue is undeniable. The specific organic remedies of the alchymists are nearly put down by the modern systems of medicine; and it is undeniable that the modern pathological schools, whose maxim it is to leave most acute diseases to their own course, to the healing art of nature, or to the so-called expectative method, have nearly shaken down the public belief in medical agents, and made the modern followers of Hippocrates equal to the decillion doctors in public opinion. No wonder, therefore, that the homœopathists are gaining ground in reverse proportion to the followers of Rokitansky, who are losing it. Eminent physicians of our time are beginning to feel the uncertain state of our science, and the excellent physician, *Thomas R. Chambers*, has, in his remarkable work, "*The Renewal of Life*," remembered this when he says:—"To the practitioner I will urge the necessity for having firm faith in the work he is busy upon, and in the *tools* he uses. Without this he can look back with no conscientious pleasure on his daily toil; his moral nature will degenerate day by day; he will have but a slighting scorn of those whose applause he would value in old age; and, worse than all, he will deserve it. The sooner a sceptic leaves our profession the better. He that complains of the want of something to believe in, I am sure has not sought for it." These are remarkable words, but, according to my conviction, true and most worthy to be remembered by every medical man, whether a veterinarian or a doctor for men.

The afore-named article in the *Times* of 4th October last—"The Doctors and the Public Health"—contains some sad, but I am sorry to say, true hints of our disbelief in physic, and of our indetermination to meet dangerous pandemic and epizootic diseases; but what can give a more deadly blow to the medical profession than these words of this remarkable and most valued newspaper in the world? "It does so happen at the present moment that these two purely physical ailments (cholera and the rinderpest) are the only clouds of any importance which darken the national horizon. We turn to the medical profession for aid, and we are sorry to say that, as seems invariably the case under such circumstances, the answers we receive are so various and contradictory as to afford us little or no guidance."

* There is also one remedy which must be named here, and it is the *cold bath*, ice internally, and cold, often reiterated cold super-infusions. This remedy has often, both in epidemics and epizootics, showed its great and wonderful efficacy. It promotes the reaction of the whole surface of the body, and restores, often wonderfully, the natural heat better than warm applications.

I myself have never seen the "rinderpest," but read a good deal of it; it is, no doubt, a zymotic disease of a very serious kind, but I think it cannot be intractable: it must, like all other acute ailments, be curable and preventible, only that we are not unhappy disbelievers in chemical remedies, but have a founded conviction of disinfecting and specific physic, being at the same time not afraid to interrogate the *nature* of the true effects of such remedies. A mere symptomatic treatment will hardly do, or have any great effect in such cases; the specifics must be detected, not only the preventive, but also the curative ones, and this is a worthy task for the compatriots of Jenner.

The discovery of the eminent physiologist, *Professor Virchow*, of Berlin, that the ciliated epithelium, when once out of motion, is again only put into this action by potash and soda, is one of the most interesting discoveries in medical science, and cannot fail to strengthen the nearly quite gone belief in specifics. Dr. Rutherford Haldane's most interesting lecture in the Royal College last winter, which has been printed in the *Edinburgh Medical Journal* of February last, is very worthy of a man of great learning and strict logical reasoning, and it cannot fail to open the eyes of many disbelievers in specifics, and lead the young students to a better and clearer insight in physic than has hitherto been common amongst medical students; on the one side, we look upon this way of reasoning as the only one able to lead us from the disheartening and humiliating manner of killing sick domestic animals. We know very well from medical history that bad and dangerous pandemics and epizootics have very often visited Europe in former days, and will still continue to do so, notwithstanding all our sanitary measures, which only serve to mitigate them, and may render them less dangerous, but can never totally prevent unforeseen atmospheric and telluric agencies, which, in all time, have been the first promoters of all pandemic and epizootic diseases.

It is to be hoped that the disheartening, and, for all medical science, so degrading a manner of curing epizootics by slaughter will soon be followed by a better plan, and more worthy the medical profession; for the slaughtering cure can only be of any real use where we are able to draw a reliable line of demarcation between sound and sick animals, and where physical agencies, which have occasioned the epizootic, are no more at work; but these conditions seem now not to be present in England, and the English veterinarians will therefore be compelled to make use of the curing principle as the only saving measure for their country. We wish them most heartily a good success, and hope that they will trust to the effective disinfecting compounds, and some of the afore-named mineral and vegetable remedies, and use them energetically and with the utmost strictness and consequence, taking, at the same time, all due and applicable quarantine measures where those might be applicable.

This being done with energy, we have little doubt of their good success in saving their great, high-minded and most noble nation from a tremendous loss of the most useful domestic animals. "Deus adjuvat fortes."—*Edinburgh Medical and Surgical Journal*.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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MEDICAL EDUCATION—NEW PROFESSORSHIPS IN THE MEDICAL DEPARTMENT OF HARVARD UNIVERSITY.

THAT medical education in America is rapidly changing its character may be seen by a glance at the long prospectuses sent out from the principal schools of our chief Atlantic cities. Until within a few years the whole public instruction of the student was limited to an annual four months' course of lectures, and the number of instructors everywhere corresponded to the six or eight general departments into which medicine had been divided for centuries. During the rest of the year he was left to manage his own education as he chose, and at the end of three years, a period of probation which was only nominally required by certain faculties, if he could pass a ridiculously easy examination in a certain proportion of these departments, he got his degree of Doctor of Medicine. With this necessarily general groundwork of knowledge, and without any proper clinical or special training, he went out into the world, either to make himself by observation, reading and natural shrewdness the really excellent, practical family physician, such as nearly every village in America may boast of, or to remain through life a very ignorant and cheap doctor. The few who fortunately had the means went at once after graduation to famous European schools, where medicine seemed a strange, almost a new science to them, and where years might be spent in learning what was there taught in but a single subdivision of one of the old general departments.

Probably none were more sensible of, or more regretted the defects in our system of medical education, than those who have been professionally engaged in it here in New England, and efforts were made by them under the only general authority recognized, our national Association, to raise its character by a mutual agreement on the part of all the schools in the country to insist upon a full three years' course of study and a more thorough examination before conferring degrees, but such a change threatened the financial prosperity of some of them by interfering with the chief source of their popularity, and nothing was effected. It was evident that without a central governing power all action in this direction must be individual. Harvard University had already taken the first important step by extending its course of instruction so as to cover the whole year in the medical, as in all its other great departments of study, and this system has been quite generally imitated within a few years by other large schools. It is, however, still non-obligatory, and although the summer sessions, so-

called, are rapidly becoming more popular as their great importance is more widely appreciated, the custom remains everywhere in operation of conferring a degree upon any person who has had his name entered with any sort of a physician for three years and has bought tickets for eight months of lectures, provided he can pass a very simple examination in a certain number of the branches taught. In a country which boasts of its system of popular education as the best in the world, and where the interval which should always separate professional from general knowledge, if respect for the former is to be preserved, must necessarily be maintained by corresponding extraordinary progress in the former, in that country alone is medical education limited to the short term of three years. It has been found impossible, as has been said, to lengthen it by general agreement between the schools, but it should at least be made incumbent on their part that the most should be made of this brief period of training by using the whole year for instruction, and on the part of the student, that he should be obliged to attend the summer as well as the winter course. So much, we think, the American Medical Association may demand, and we doubt if any school now would dare object to a step which would not interfere with their own success and which would contribute so materially to elevate professional rank amongst us.

It should also insist upon students passing a satisfactory examination in every department before he can obtain a degree. If these branches, each and all, are considered an essential part of a medical education, of course no person is fitted for practice until he has acquired the slight knowledge of them necessary to pass the examination at any of our schools. Full diplomas of *Medicinæ Doctor* are given, however, in cases where the candidate is so ignorant in these elementary branches of knowledge as to fail to pass in several of them.

Another and a far more important change in our system of medical education is the increase in the number of instructors in the schools within the last few years. It has become an impossibility for any man to know or to teach as a professor should, all that modern science has done in departments of medicine formerly included under a single head. In Europe it has long been the custom to divide and subdivide these branches, and instruction is there given not only by the numerous occupants of the regular chairs, but by so-called extraordinary professors and special instructors. Our own University has been among the first to recognize the necessity of such division of labor, and has accordingly created the system of adjunct professors, assistant professors, and assistants, so that more than twenty instructors are now engaged in teaching in this department, in which seven were considered sufficient less than ten years ago.

It gives us great pleasure to announce among these recent changes, that a chair of Comparative Anatomy has just been established, and that Prof. Jeffries Wyman has been appointed to fill it. His preëminent rank in this branch of science, his wide reputation, and his long experience and success as a teacher in another department of the University, make this appointment one of the most important in the history of the Medical College. It is a satisfactory proof, moreover, that the Government of the University comprehends the importance of such collateral branches in the education of the future physician, which have

hitherto been almost wholly neglected. The unparalleled richness of Prof. Wyman's own museum and the accessibility of others amongst us, afford opportunities for the illustration of this important branch of science such as no other city in this country can command. Prof. Owen recognizes, in his new book on the "Anatomy of the Vertebrates," "seven ways" of anatomical study, and describes anthropotomy, or the anatomy of man, as "knowledge of the structure of an animal without reference to or comparison with any other, its species being regarded as standing alone in creation," and wisely adds that "no special anatomy can be rightly and fully understood save on the basis of the general science of which it is an integral part."

Our readers will also be pleased to hear of the appointment by the corporation of Dr. Richard M. Hodges as Adjunct Professor of Surgery, and of Dr. Joseph S. Lombard as Assistant Professor of Physiology, both subject to the ratification of the Board of Overseers. These gentlemen are well known to the profession for their attainments in their respective departments, and will add much to the strength and high reputation of the school.

WE would call the attention of our readers to the following communication, in the hope that it may elicit the information that it asks for.

Messrs. Editors.—The first physician in Boston was Dr. John Clarke, whose portrait now hangs in the Historical Rooms. His wife, the "first virgin who ever set foot on the spot of land called Boston," as tradition has it, was Martha Saltonstall, the only own sister of Sir Richard. They went first to Newbury, into the neighborhood of the Whittinghams, of Ipswich, in 1639. Dr. Clarke came from the north of England, probably from Durham, for he soon returned to the mother country, where he chartered five ships to bring over stock, which he established in Plymouth colony, where it long retained the name of "Clarke's Breed." Martha Saltonstall's second stepmother was of the family of the Duke of Gordon, and Martha brought to this country a "gold goblet," which was *her* gift. Her husband brought two parchment diplomas, with heavy seals attached—one from the College of Physicians, one a special diploma for his success in cutting for the stone. The goblet and the diplomas were considered of sufficient importance to be mentioned in the wills of several successive generations. He is also said to have been the first person on this continent who performed the operation of trepanning, and in 1656 patented a stove, the forerunner of Franklin's. Dr. John Clarke, 2d, son of the above and Martha his wife, married Martha Whittingham, the lineal descendant of John Calvin's sister and Dean Whittingham, of Durham. Three sons were born of this marriage—

1. John the third, whose line died out in the seventh Dr. John Clarke, who died childless in 1807.

2. William, who died childless, his property reverting, through his widow, who was his cousin and a Whittingham, afterwards wife of Gov. Saltonstall, to Harvard College and the children of his older brother.

3. Samuel, who had a large family of children, some of whom died before him. The family was more distinguished in a political as well as medical way than it is proper to state here, but Samuel was a mer-

chant. He wrote, in 1731, a brief chronicle of the glories of his family, showing an honest pride in his descent, his gold goblet, and the two diplomas; but strange to say, the fate of these last articles is now unknown. We are nowhere told the name of his wife, nor can we trace the fortunes of the children who survived him. The Hon. James Clarke, believed to be his *third* son, was his executor in 1748. If the diplomas still exist, they must be in the possession of some medical Society or in some private medical cabinet. It has become desirable to trace the family of Samuel Clarke. Some of his sons may have gone to what is commonly called the "Cape," or to the farm in Plymouth County, where the family stock was long raised. Information is solicited, and any papers sent to the Editors of this JOURNAL will be gratefully received, and if of real value properly paid for.

Boston, January 21, 1866.

SALTONSTALL.

Foreign Intelligence.—It will be remembered that homœopathists were allowed to try the effect of their practice upon the cattle affected with the rinderpest in England by the Royal Commission. The results of this treatment are all that was anticipated. Of the first batch of 21 selected, all died; of the second batch of 45 animals, 39 are dead and the remainder still sick.

The following are the conclusions of the Medical Commission of Norfolk with regard to the cattle plague. They furnish indirect support to the views recently published by Dr. Murchison concerning the resemblance between this affection and smallpox.

1. The disease is the result of a specific blood-poison. 2. It is an eruptive disease, closely allied in its nature to the exanthemata in man. 3. It is both infectious and contagious. 4. It is communicable from ox to ox, from sheep to sheep, and between these two classes of animals, by mere association. 5. It is also inoculable, by means of the discharges, from bullocks to sheep, from sheep to bullocks, and to each other respectively. 6. The disease, as seen in sheep, is identical in nature with that of bullocks, but is milder in type, and is also modified as to its *post-mortem* appearances.

The announcement that Prof. Simpson, of Edinburgh, has received knighthood from the British Government will be read with great pleasure by his numerous friends in this country.

Dr. Jules Worms states that the number of patients attacked by cholera while in the Parisian hospitals was, in 1849, 33 per cent. of those admitted into the hospitals suffering from cholera; in 1854 it was 44 per cent. In the Hôpital de la Charité 89 home cases occurred for every 100 received in 1849; and in 1854, 94 for every 100. Briquet states that before Oct. 9, 1854, no case of cholera had occurred at La Charité. On the 9th and 14th, two cholera patients were received, and from the 15th to the 19th eight cases of cholera broke out in patients placed near to one or other of the cholera cases. In the wards of M. Recamier a patient died of cholera. The next six patients who occupied his bed were seized with cholera while in the hospital and died with it.

The small people of Equatorial Africa, recently discovered by Du Chaillu about 1° and 2° south latitude and 12° east longitude, are de-

scribed as of migratory habits and as changing their temporary shelter under trees from one place to another. While the inhabitants of this mountain region are lighter in color than those of the seashore, these Obongo are still less dark. They have only short tufts of hair upon their heads, and are thus strikingly distinguished from the settled inhabitants, who wear large turrets of hair upon their heads. They have a wild, anxious, and timorous expression in their eyes, and although I gave many beads to entice them to remain, and was brought to them stealthily by the natives, all the men except a young adult disappeared, leaving a few women behind. It would appear that my visit alarmed them, for, although I staid a week in the adjacent village, the Obongo were no more to be heard of. The following are the measurements I was enabled to make:—The only adult male measured 4 feet 6 inches, but as one of the women reached 5 feet $\frac{1}{4}$ inch (she being extraordinarily tall), I have no doubt some of the men are equally tall and some perhaps taller. The other women I measured had the following height:—4 feet 1 inch, 4 feet $7\frac{1}{4}$ inches, 4 feet 5 inches, and the smallest 4 feet $\frac{1}{4}$ inch. I thought, after looking at the whole group of adult women, that their average height was from 4 feet 5 inches to 4 feet 6 inches. The smallest woman had the largest head, 1 foot $10\frac{1}{2}$ inches in circumference; the smallest was 1 foot 9 inches round.

Annual Meeting of the New York State Medical Society.—The fifty-ninth annual meeting was held at Albany on Feb. 7th, the session lasting three days, and was largely attended by the best physicians in the State. The inaugural address was delivered by the President, Dr. H. W. Dean, of Rochester. Among a great variety of scientific papers presented for publication was one by Dr. Squibb, of Brooklyn, on the *materia medica*, accompanied by resolutions, which were adopted and ordered by vote to be presented to the different State Medical Societies, with the request that they take similar action.

Dr. Corliss gave a very interesting account of his visit to the Connecticut and Massachusetts State Medical Societies. Resolutions were presented by committees and adopted in reference to the decease of Dr. Blatchford, a former President of the Society, of Dr. S. D. Willard, late Secretary, and of Dr. William Taylor. A committee was also appointed to draft resolutions on the death of Dr. Mott, for publication.

Resolutions were adopted concurring in the views of the Council of Hygiene concerning Cholera, and acknowledging thanks for their efforts and for those of Drs. Sayre, Murphy and Swinburne, and recommending that the pamphlet published by these parties be distributed publicly.

The committees on the Merritt and the Brinsmade Prizes stated that no essays complying with the necessary conditions had been presented. The following gentlemen were elected officers for the ensuing year:

President—Joseph C. Hutchinson, M.D., of Brooklyn; *Vice President*—Julien T. Williams, M.D., of Dunkirk, Chataque Co.; *Secretary*—William H. Bailey, M.D., of Albany; *Treasurer*—J. V. P. Quackenbush, M.D., of Albany.

Delegates to the National Quarantine Convention.—Dr. Elisha Harris,

Dr. James R. Wood, John H. Griscom, Augustus Willard, John Swinburn, A. N. Bell, John W. Green, John Ordronaux, Alden March.

Delegates to the Connecticut State Medical Society.—G. J. Fisher, N. C. Husted, B. P. Staats, J. H. Curry, J. T. Williams.

Delegates to the Massachusetts State Medical Society.—Dr. Joseph Bates, Henry S. Downs, Samuel Hart, E. S. F. Arnold.

Delegates to the New Hampshire State Medical Society.—Dr. E. R. Peaslee, Dr. Samuel Shumway, Dr. Hiram Corliss.

Delegates to the Vermont State Medical Society.—Dr. E. W. Howard, Dr. John H. Mooers, Dr. Wm. D. Seymour, Dr. Wm. H. Richardson.

We have received the sixth and seventh Annual Report of the Chicago Charitable Eye and Ear Infirmary, at which 900 patients have been treated during the past two years. The attending Surgeons are Drs. Edward L. Holmes and Edwin Powell. We congratulate our Chicago brethren on having among them an oculist so thoroughly educated as Dr. Holmes.

The Naval Medical Board, recently in session in Philadelphia, Pa., have examined the following assistant surgeons and have found them qualified for passed assistant surgeons, the names standing in the order of merit:—

- | | | |
|--------------------------|---------------------------|--------------------------|
| 1. G. H. E. Baumgarten. | 14. Thomas Hiland. | 27. Edward D. Payne. |
| 2. Robert T. Eder. | 15. Wm. T. Plant. | 28. Samuel F. Shaw. |
| 3. Louis Zewzen. | 16. Edward R. Dodge. | 29. Joseph Hogg. |
| 4. John H. Clark. | 17. Douglass R. Bannan. | 30. Charles H. Giberson. |
| 5. John D. Murphy. | 18. Charles H. White. | 31. John T. Luck. |
| 6. Adolph A. Hochling. | 19. George N. Woods. | 32. George R. Brush. |
| 7. Benjamin H. Kidder. | 20. Frank L. Dubois. | 33. Edward C. Vermeulen. |
| 8. Newton H. Adams. | 21. George H. Cooke. | 34. Charles J. S. Wells. |
| 9. George D. Slocum. | 22. Luther M. Lyon. | 35. Edward Kersheer. |
| 10. James J. Ailingham. | 23. Heman P. Babcock. | 36. Henry S. Pitkin. |
| 11. Wm. K. Van Reypen. | 24. Gustavus S. Franklin. | 37. John B. Ackley. |
| 12. Thomas C. Walton. | 25. Thomas N. Penrose. | 38. Wm. S. Fort. |
| 13. Theodore Woolverton. | 26. William H. Johnson. | |

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 10th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	40	38	78
Ave. mortality of corresponding weeks for ten years, 1856—1866	38.6	39.5	78.1
Average corrected to increased population	00	00	85.07
Death of persons above 90	-	0	0

BOOKS AND PAMPHLETS RECEIVED.—The Malformations, Diseases and Injuries of the Fingers and Toes, and their Surgical Treatment. By Thomas Annandale, F.R.C.S. Edin., Lecturer on Surgery, and Surgeon to the Edinburgh Royal Dispensary, The Jacksonian Prize Essay for the year 1864. Philadelphia: J. B. Lippincott & Co.—Contributions to Bone and Nerve Surgery. By J. C. Nott, M.D., Professor of Surgery in Mobile Medical College. Philadelphia: J. B. Lippincott & Co.

DEATHS IN BOSTON for the week ending Saturday noon, February 10th, 78. Males, 40—Females 38. Accident, 1—anæmia, 1—aneurism, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 5—bronchitis, 3—cancer, 1—consumption, 15—convulsions, 3—croup, 5—diphtheria, 3—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 1—typhoid fever, 1—gastritis, 1—infantile disease, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 11—marasmus, 2—old age, 1—paralysis, 2—peritonitis, 2—puerperal disease, 2—smallpox, 1—starvation, 1—unknown, 5.

Under 5 years of age, 34—between 5 and 20 years, 4—between 20 and 40 years, 18—between 40 and 60 years, 11—above 60 years, 11. Born in the United States, 60—Ireland, 16—other places, 2.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, FEBRUARY 22, 1866.

No. 4.

THORACIC AND ABDOMINAL ANEURISMS OF THE AORTA.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By J. N. BORLAND, M.D.

THE patient was a sailor, 36 years old, born in Finland. He entered the Boston City Hospital, December 8th, 1865, and reported that two years previously he had general dropsy, and was cured in two months. With the exception of an attack of gonorrhœa eighteen months ago, he continued well until three months before entrance, when he took a severe cold after exposure, and had cold in his head, cough, and pain in cardiac region. These symptoms left him in two weeks, and since then he has had constant pain in his hips, and in the lower part of his back, but never above the crista ilii. Has had no return of the dropsy. Has not been confined to the bed.

General appearance thin and anæmic. Pulse 60, good. Sounds of heart normal. Tongue has a thick brown coat. No appetite or dyspepsia. Bowels are commonly constipated. Urine less in quantity than natural, and high colored; specific gravity 1.020; reaction acid, albuminous, and under the microscope showing epithelial scales and pus corpuscles. Old cicatrices of buboes in groins. No enlargement of glands, nodes or other indications of constitutional affection from syphilis.

He was ordered fluid extract of buchu, and fomentations to vesical region at night, with a pill containing ferri protocarb. gr. iij., pulv. aloës, gr. ss., every four hours, and house diet.

He began soon to pass much of his time in bed, from weakness and pain felt in his abdomen when walking. When in bed and lying on his back this pain was not felt, but it prevented his resting on his side.

On December 11th, without apparent cause, the pain through the pelvis being relieved, he began to vomit watery fluid, and the tendency to this lasted for five days. On the 13th, during the morning visit, he suddenly had a very severe epileptic convulsion, which gradually subsided, with consciousness slowly returning and fully re-

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established in about four hours. This was unaccompanied by any other cerebral symptoms; and he afterwards stated that he was sure he never had previously had any such convulsion, nor was there afterwards any tendency to repetition.

Dec. 17th.—The buchu was stopped.

19th.—No albumen or pus was discovered on examination of the urine.

20th.—Felt pain in vicinity of heart when standing up.

21st.—Pulse 96. Complained of severe pain in left back and side of thorax, especially while standing up. Nothing abnormal was discovered upon a careful physical examination. The iron pill was omitted, and he was ordered a solution containing five grains of iodide of potassium three times daily.

27th.—The patient showed no improvement, the anæmia seemed increasing, and he complained of weakness; his pulse was quick and small, varying from 92 to 104. At times he felt no pain, but at others he complained of pain in his left chest and in his abdomen, but of a vague character, of uncertain duration and intensity, and referable to no fixed spot. His nights were wakeful. I omitted the iodide of potassium and ordered him ten drops of tincture of chloride of iron three times daily, and whiskey half an ounce three times daily.

29th.—Pulse 92, small, weak. Had four hours sleep after morphia. Nothing abnormal could be discovered in sounds of heart or lungs.

Jan. 2d.—He could not sit up without increasing his pain, and walking produced dizziness.

4th.—Pain is only felt in the latter part of the day and at night, and then in the region of the stomach; the abdomen was flat, soft and tympanitic, nothing unusual being detected on exploration. A solution containing five grains of citrate of iron and quinine was substituted for the tincture of the chloride of iron.

5th.—Pulse 72, counted with difficulty. He was ordered frequent supplies of beef-tea.

From this time until Jan. 27th, the patient continued to slowly depreciate in condition, with some days of relief, but always looking anæmic, growing thinner, feeling weak, and with vague pains, sometimes felt in one place, sometimes in another, occasionally vomiting, and never responding to stimulus, various remedies being used, but all equally without benefit.

On the 27th, the record states that the patient vomited on the evening before, was afterwards quiet but wakeful till midnight, then seized with severe and sudden pain, described as shooting from the right hypochondrium to the left ilium, and followed by fainting. To-day, he looks sallow, thin and weak; lips blue. Abdominal pain gone, but soreness remaining. One dejection in night after disturbance. Pulse 96. Great thirst.

Jan. 30th.—Tongue swollen, sore, stiff, covered with a thick, dirty-

white, moist coat. Lips swollen and aphthous. Some stiffness about palate on swallowing. Examination of urine shows only slight increase in specific gravity, and the presence of albumen, but no casts.

Feb. 1st.—“Yesterday P.M. the patient was apparently moribund, insensible, pulseless, with cold sweats. This condition was preceded by an access of intense abdominal pain, shooting down the right thigh; he rallied, however, under liberal administration of brandy. Catheter, passed this morning, drew off a small quantity of clear urine. Abdomen full and tympanitic. Pulse 100, steady. Smell of breath and body cadaverous.”

At this time he assumed a position on his right side, which he retained until his death. He took no food, except drinking freely of brandy and water. No marked change took place, his pulse retaining its character, small, thready, rapid, 96 to 112, until Feb. 4th, when, reaching after his brandy, he suddenly died.

The impossibility in this case of forming any accurate diagnosis, rendered the autopsy one of marked interest as offering the solution to a difficult problem. I could only recognize the fact that grave disease existed somewhere. The steadily unfavorable progress in spite of nourishing and stimulating treatment, and the non-response to stimulation, showed it plainly. The increasing emaciation; the pale and anxious countenance, with its leaden hue, pinched features and livid lips; the frequent pulse; the varying pains; the occasional nausea and dyspepsia; all suggested to my mind that the disease might be malignant, yet where located or of what organ I could not tell. The healthy-sounding heart and lungs, the non-detection of a tumor of any sort, left me entirely in the dark; and the result proved that a patient may remain for weeks in a hospital, under constant inspection, and be frequently visited by numbers of experienced and skilful physicians, and may finally die of aneurism without the character of the disease being suspected; and also may live even for days after rupture and large effusion of blood, as in this case, where rupture of the abdominal sac took place undoubtedly on the afternoon of January 31, death not occurring till February 4, at 4, A.M.

Autopsy, Feb. 5th, 1866, by Dr. SWAN, Pathologist to the Hospital.

Body stiff from cold; somewhat emaciated; distinctly jaundiced.

The heart was healthy, not large. The pericardium contained upwards of one ounce of serum. No fluid in the pleural cavities; but both lungs were slightly bound, in places, to the wall of the chest by old firm bands of lymph, the left being also firmly attached to the diaphragm. The apices of both lungs contained a few hard tubercles.

There was marked but not excessive atheromatous disease of the aorta for most of its extent. Just beyond the arch, its upper limits about one inch and five eighths from the subclavian, was a rather abrupt and irregular opening about an inch in transverse and rather less in longitudinal diameter, communicating with a somewhat flattened aneurismal cavity, about two inches wide and long, with the walls

of which the inner arterial coat seemed to some extent continuous. The sac contained coagula, which were broken up by the process of removal, it having been firmly adherent over the left side of the body of a vertebra and over two contiguous ribs. These bony surfaces were rough and carious, without being deeply eroded. At the side of the opening the aorta was dilated into a distinct, narrow, rather shallow pouch an inch and a quarter long, and lined at the bottom with a thin layer of firmly adhering old coagulum.

The position of the abdominal organs was for the most part normal; but the stomach was curved rather sharply and the pyloric end seemed pushed to the left of its usual situation.

About two pints of serum were found in the abdominal cavity; and lying on the upper surfaces of the liver and stomach, and extending over the flexure and in front of the latter organ, were thick sheets of black coagulated blood, recent, but sufficiently firm to be removed entire. The same filled the spaces of the pelvic cavity.

In the right lumbar region was an irregularly roundish mass of recent black coagulum, as it seemed to be, measuring vertically six or seven, and laterally five inches. It was quite firm and consistent, and was in part apparently covered by thin membrane. The cœcum and adjacent portion of colon were rather firmly attached to its anterior and lower surface, and a portion of the coagulum evidently lay between the folds of the meso-cœcum and perhaps of the meso-colon. The right kidney and supra-renal capsule lay deeply enveloped in the mass, and the former, when removed, after section left a smooth mould lined by its capsule. In this mass was a cavity with rather smooth walls lined by firm old dark-red fibrine, admitting three or four fingers to their full length, through an opening in the abdominal aorta, two inches long by one and three quarters wide, just below the cœliac axis, and six and three quarter inches from the mouth of the thoracic aneurism. The inner coat of the artery terminated in part abruptly at the brink of the aneurism; elsewhere seemed gradually lost in the cavity. The particular point whence the hemorrhage occurred was not noticed.

About an inch below the cœliac axis, the superior mesenteric artery, as pointed out by Dr. Jackson, was found cut off close to the aorta, but so completely obliterated or plugged that no trace of its orifice could be found upon the inner surface of the sac. A little less than a quarter of an inch below the level of the superior mesenteric, the right renal artery was traced for an inch and a quarter from a cut surface to a point in the sac nearly two inches from the mouth, where it became completely obliterated. The left renal was not positively recognized.

The right kidney was rather below the normal size, as if from compression. In the cortex were two or three irregular masses of a pale yellowish color, bordered by a bright red line, which proved under the microscope to be very fatty, the tubes being crowded with

granular pellets corresponding to the original epithelium. Left kidney rather above the normal size. The cortical substance of both showed bright red streaks and spots; but in general the epithelium, though slightly granular and opaque, was normal in other respects.

Liver large, rather fatty. Other organs not remarkable.

SPONTANEOUS DISLOCATION OF THE CRYSTALLINE IN BOTH EYES. SUBSEQUENT SEVERE SYMPTOMS IN ONE EYE REQUIRING THE REMOVAL OF THE DEGENERATED LENS BY OUT-SCOOPING COMBINED WITH IRIDECTOMY.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By HENRY W. WILLIAMS, M.D.

On the 19th January, 1866, I saw a man of about 40 years of age, who gave the following account of his case. He had always, since his remembrance, had imperfect vision in the left eye, and had at times observed in its anterior chamber what seemed like a drop of olive oil, which would again disappear. From his account of his symptoms there can be no doubt that this was the displaced crystalline. About a year since he began to have pain in and around this eye, with photophobia and lachrymation, accompanied by injection of the vessels of the globe. After some time a cloudy appearance was observed in the field of the pupil, and vision was gradually lost. In the right eye, also, the sight became less perfect, and he was annoyed by double images in this eye, one of them being more clearly defined than the other.

On examination, the left pupil was seen to be greatly distended, and its field was occupied by a dark mass with a ring of yellowish opacity around its margin. So dark was the centre of the pupil that it seemed at a first glance perfectly clear. The anterior chamber was nearly filled, and the cornea pressed upon by this mass, and by its crowding upon the ciliary region, an irritable condition was kept up, which not only disabled him from business, but threatened to induce a sympathetic inflammation of the other eye. The globe was a little harder than the other. He was therefore advised to submit to an operation for the removal of the degenerated lens, which if allowed to remain displaced must continue to be a source of irritation, and, if it should appear to be necessary, to sacrifice even the anterior half of the globe, so as to obtain relief from pain and secure the safety of the other eye.

The right eye showed a dislocation of the crystalline towards the inner canthus, to an extent equal to half its diameter. Slight cloudiness was also beginning in the lens. With much difficulty he could read a large print when brought very near his eye. A narrow crescent of clear space could be seen at the outer margin of the pupil,

and through this space he could see much better with a cataract glass. On dilating the pupil with atropia, so as to enlarge this crescentic field, vision was greatly improved with the aid of glasses. He could now read fine print with a lens of $4\frac{1}{2}$ inches, and saw distant objects well with 10 inches focus.

A double operation was performed on the left eye. A large iridectomy was first done, upwards, as a means of preventing subsequent iritis and relieving the congestion of the ciliary region, and to give room for the extraction of the hardened crystalline. The lens was then removed with my modification of Mr. Critchett's spoon. It proved to be nearly black in its central portions, while its margin was of cretaceous hardness.

Immediate relief from the discomfort with which he had so long suffered followed the operation, and he was able to bear the light better than for a long time previously. The very large corneal wound healed at once, and the patient was able to return home on the fifth day. On the 10th of February I heard that he was doing well.

ON THE ACTION OF MEDICINAL PREPARATIONS OF IRON ON THE TEETH.

By JOHN SMITH, M.D., F.R.C.S., Surgeon-Dentist to the Royal Infirmary, &c.

THE preparations of iron in medicinal use are very generally supposed to exert, in a direct manner, an injurious influence on the teeth of patients for whom they are prescribed. Complaints regarding their destructive tendency in this respect are familiar both to the general practitioner and to the dentist. With the view of ascertaining how far such complaints are well grounded, the experiments I have here briefly to notice were made.

Eight of the compounds of iron in most general use as remedial agents, and along with them one or two other non-ferruginous compounds, sometimes suspected of injuring the teeth, were selected, and in solutions of these compounds the same *number* and the same *kinds* of human teeth were immersed. In each of the separate solutions four teeth were placed; and in all cases these four teeth consisted of a sound canine and bicuspid, and a decayed upper and lower molar. The solutions consisted of:—

- I. Sach. carb. ferri, gr. xx.; aquæ, ℥ i.
- II. Carb. ferri, gr. xx.; aquæ, ℥ i.
- III. Syrup. phos. ferri, ℥ ss.; phos. ferri, gr. x.; aquæ, ℥ ss.
- IV. Syrup. iod. ferri, ℥ ss.; aquæ, ℥ ss.
- V. Citrat. quiniae et ferri, ʒ ij.; aquæ, ℥ i.
- VI. Vinum ferri. ℥ ss.; aquæ, ℥ ss.
- VII. Sulphat. ferri, ℥ ss.; aquæ, ℥ i.
- VII. Tinct. mur. ferri, ʒ ij.; aquæ, ℥ i.

At the same time the following non-ferruginous solutions were tested:—

I. Sulphate of quinine, gr. v.; sulphuric acid, gtt. i.; water, ℥ ss.

II. Phosphoric acid dilute, ℥ ss.; water, ℥ ss.

III. Condyl's fluid (crimson), ℥ ss.; water, ℥ ss.

On examining the respective solutions after twenty-four hours, the teeth were found unaltered in those of the carbonate and saccharine carbonate of iron, the phosphate of iron, the iodide of iron, the citrate of quinine and iron, and in that of the sulphate of quinine. In the solution of the vinum ferri, the liquid itself was somewhat turbid, the teeth, however, seeming to be untouched. In that of the muriate of iron, a turbid sediment filled the bottom of the bottle, and covered up the teeth from view; the fangs of the teeth were somewhat soft and flexible, and the enamel easily scraped down. The sediment, under the microscope, presented an amorphous granular appearance. In that of the phosphoric acid they seemed somewhat flexible at their more slender parts, such as the points of the fangs; and the enamel looked opaque and chalky, but did not feel crumbling or soft. In the solution of Condyl's fluid they were deeply stained, but in no way altered in texture.

The teeth in the different solutions were allowed to remain ten days longer, and on examining them at the end of that period, neither those in the carbonate or saccharine carbonate of iron, the phosphate of iron, the iodide of iron, nor the citrate of iron and quinine, presented any further change, except that those in the saccharine carbonate were slightly blackened—the discoloration, however, being superficial, and nearly all removable by brushing. A ropy sediment adhered to those in the sulphate of quinine, and perhaps a very slight softening of the surface of the fang might be present. The ropy sediment presented, under the microscope, the appearance of a mass of acicular crystals of various sizes, interspersed with threads or fibres of some kinds.

In the solutions of the vinum ferri, the sulphate of iron, the muriate of iron, the phosphoric acid, and of Condyl's fluid, certain changes were observable. In the vinum ferri the cloudy precipitate was somewhat increased, and the teeth were dark and discolored, especially in the fangs, but otherwise uninjured. In the sulphate of iron solution a very copious precipitate had formed. The teeth were not softened throughout their whole thickness, but had a layer of soft substance covering in what of the enamel and dentine remained hard beneath. They were also considerably discolored. In the solution of the muriate of iron, a large deposit of the cloudy precipitate had accumulated, and in this the teeth lay buried. Their fangs were very soft, and quite flexible, and the enamel was wasted away, and on being touched crumbled down like chalk. In those again, immersed in the phosphoric acid solution the fangs were quite flexible, and were diminished in bulk; the enamel could be deeply

scratched with any blunt instrument, and felt like Derbyshire spar. It was more wasted, but not so soft as that of the teeth in the muriate of iron solution. Notwithstanding this loss of salts of lime, on drying by exposure to the air these teeth have again become hard and unyielding. In the Condyl's solution, the teeth were covered by a very dark incrustation, which, however, could be nearly all removed by brushing, or still more effectually by applying dilute muriatic acid; otherwise they were uninjured. The solution itself had become almost colorless.

From these facts it would appear that certain preparations of iron, when directly applied, do exercise a powerful effect on the substance of the teeth. And the ratio of the effects obtained would seem to prove, that of all the preparations employed in these experiments that of the tincture of the muriate of iron acts most powerfully, the sulphate of iron next, and next to that again, although in comparison very immaterially, the vinum ferri—the other preparations of iron appearing to be inert.

Of the other substances experimented with, phosphoric acid seems the only one producing injurious effects on the teeth, which it does, however, to a very marked extent.—*Edinburgh Medical Journal.*

CONTAGIOUS DISEASES AND THEIR MODE OF PROPAGATION.

THE following extract from an address delivered by Dr. Lankester at the Social Science Congress on Monday, Oct. 9th, cannot fail to interest our readers.

“Among our sanitary reformers there are two great schools, one of which maintains that the great mass of zymotic diseases are produced by special poisons, and are called contagionists, while another school do not believe in the existence of special poisons, but believe that certain general conditions of sanitary neglect and dirt are alone necessary to produce the group of zymotic diseases, and they are called anti-contagionists. Now, I believe that the extreme views of either school are wrong, and I have a very deep impression that for sanitary measures to be directed by one or other party in the present state of our knowledge of the diseases would be to plunge us into worse evils than quiet submission to their unresisted influence. For an officer of health to suppose that cleansing, and draining, and washing, would arrest the progress of smallpox in a house full of unvaccinated persons would be an utter absurdity; while the placing a cordon around an ill-ventilated and badly warmed house, expecting to keep off bronchitis and pneumonia, while the temperature is 12° below the freezing point, would be equally absurd. But while all are agreed that smallpox is a contagious disease and bronchitis is not, there is a large class of diseases on which sanitary authorities differ as to their nature, and the best modes of arresting their development.

It is on this account that I now propose briefly to examine what is really known of the nature of contagious diseases and their mode of propagation; and if I succeed in nothing further, I hope I shall be able to show that it is of the utmost importance in all our sanitary operations that we should, at least, consider the issues of both theories; that while believing in contagion, we should act as if all depended on the removal of the general external agencies of disease; or while believing in the spontaneous origin of diseases in dirt, we should yet do all to avert the possibility of their propagation by contagion. It is of the highest importance, at the same time, that we should pursue the inquiry into the origin and nature of those zymotic or pneumatic diseases which carry off annually upwards of 100,000 of our population. In order to do this I think there are three circumstances that demand our attention. There is, first, the poison that is supposed to kindle the disease; and, secondly, there is the medium that conveys it to, thirdly, the person predisposed to take the disease. If we lose sight of any one of these elements in investigating zymotic diseases, we shall most assuredly get wrong, and practically commit great mistakes. Thus, let me take smallpox as an example. In order to propagate this disease there must be, first, the poison-matter from a smallpox pustule; and, secondly, a medium of conveyance, either the point of a lancet or an atmosphere to convey the poisonous germs; and, thirdly, there must be a person predisposed to take it. If the poison is not there, no amount of predisposition, that we are aware of, will engender the disease. Again, if the poison is there, and the predisposed person, there must be a medium of conveyance; and if a predisposed person is at one end of the room and the affected individual at the other, and the current of the atmosphere blows from the unaffected to the affected person, no poison will pass and no disease be established. Or again, the atmosphere may be so extensive as to dilute the poison to a tenuity by which it becomes powerless; or the atmosphere may be artificially ozonized, or iodized, or chlorinized so as to destroy the germs of the poison. But let the poison be ever so intense, and the medium ever so ready to convey it, if the unaffected person has had the smallpox or been vaccinated, no disease will be produced. Hence, we must study the poison-makers, the poison-bearers, and the poison-takers.

Now, with regard to poisons, even the anti-contagionists admit that in what they call miasmatic diseases conglomerations of dirt and filth, or matters in their wrong places, do get into the system, and, at one time or another, do upset and damage the healthy working of the machinery; and they are also bound to state in a scientific way what compounds are produced by dirt, and in precisely what way they affect the system. There can be no doubt that certain inorganic agencies, such as carbonic acid, sulphuretted, phosphuretted, and carbonetted hydrogens, ammonia, and sulpho-cyanogen, do produce injurious effects upon the system. Continued exposure to such

exhalations may prevent a proper oxidation of the tissues, and render it predisposed to take in the diseases of special poisons, but we have no evidence to show that any of these agents—although they will destroy life—are capable of producing alone any of the forms of miasmatic disease. Again, it seems demonstrated that there arise, during the decomposition of vegetable and animal matters, certain organic molecules which, being taken into the system, would produce certain definite changes in the system constituting well-known forms of disease. Thus, ague and kindred fevers, called paludal, and paroxysmal fevers, do not seem to be produced by poisons formed in the animal system, but by poisons formed during the decomposition of vegetable matter. A certain amount, also, of the diarrhoea of summer is to be set down to the decomposition of animal and vegetable matters. Certain quantities of these matters are directly taken into the stomach and bowels, while others appear to come in contact with the mucous surface by inhalation. There is, also, one of the endemic and epidemic fevers of our country that is supposed by high sanitary and medical authorities to originate in the spontaneous decomposition of organic matters in drains and sewers; hence, it has been called ‘drain fever.’ It is, however, better known by the name of gastric or typhoid fever. That this disease is generated by a specific poison has been demonstrated by Dr. William Budd, of Bristol, and should it be capable of demonstration that this disease is really generated *de novo* by the matter of the drains and sewers, it would be an interesting fact, as showing the possibility of a contagious disease being produced afresh. But up to the present time we have no conclusive experiment with regard to the origin of any of the specific contagious diseases. There is no error, perhaps, of more vital importance to public health than that which was fallen into by some of our early sanitary reformers—a belief in the spontaneous origin of the several forms of diseases produced by specific contagions. The most common forms of contagious diseases in this country are smallpox, scarlet fever, measles, whooping cough, typhus fever, typhoid fever, and our occasional visitant—Asiatic Cholera. Of the intricate nature of the poisons producing these diseases we know but little, but recent researches with the microscope lead us to hope that we are not far distant from the time when at least the form of the poisons of these diseases will be made visible to the human eye. It is a fact known to all that the blood contains two sorts of cells or globules—the one red, the other white. The white cells are composed of matter in a state of vital change. It is these cells which accumulate in inflamed parts and which form the pus found in vesicles, pustules, abscesses, and inflamed surfaces of the body. These pus cells have a great power of multiplication, and they retain their vitality after they have been removed from the living body. We can convey common pus cells from one living body to another and make them increase. There is a disease of the eye

attended with a large formation of these pus cells, and these may be conveyed through the air from one person's eye to that of another and produce the same disease. In the disease known as pyæmia these cells assume a specific character; and Dr. Richardson informs me that he has succeeded in producing, artificially, pyæmia in animals by introducing the secretions of an animal affected with pyæmia into one that is not. In smallpox we have a disease characterized by pustules over the body. Each pustule contains a secretion abounding with pus cells, and the matter with which they are formed. It is the introduction of this purulent matter into the blood that sets up the dreadful malady of smallpox. In the same way we find the vesicle of cowpox charged with white cells, and the 'germinal matter' of Dr. Beale. The germinal matter here, however, does not possess the vitality and energy of that of the smallpox pustule. It is seldom conveyed through the air; like some other animal poisons with which we are acquainted, it requires contact; but being introduced into the blood of another person, it produces the same disease—always the same disease, never another. We may learn much of the nature of these poison-cells by the study of those we know so well. These cells, or germinal elements, retain their vitality long after they have been removed from the body, if you exclude them from the air. The vaccine lymph has been conveyed between pieces of glass, or dried on tips of bone or threads of line and cotton, all over the globe, and has been found capable of engendering the disease cowpox. This shows us how all these poisons may be covered over in linen, cotton, and woollen fabrics, how they can be conveyed in letters and newspapers, how they may adhere to inanimate substances of all kinds, and only need the awakening influence of a little moisture to summon them to awake and live anew. No one, that I am aware, has yet isolated the poison of scarlet fever, of measles, of typhus, of cholera, and of the other diseases of the group of contagious diseases; but, reasoning from analogy, and there could hardly be a better instance of the process, we are driven to the conclusion that these diseases depend on a cause similar to that of smallpox, and that the real form of the poison is the charged white cell of the blood. It is, however, interesting to notice some varieties in the habits of these poisons. Thus, we are not aware that the poisons of smallpox, measles, scarlet fever or typhus are conveyed by any means but through air, while there is every reason to believe that the poisons of typhoid fever and cholera are conveyed by the agency of water. There is an interesting relation between this fact and the seat of the disease, for, while one set of diseases manifest themselves by eruptions upon the skin, the other set is characterized by derangements of the mucous membrane of the intestines.

A question of high interest arises here, and it is one that has not at present been settled, and that is, as to whether the poison matter

of these diseases is capable of multiplying itself by cell-division, or the ordinary forms of the growth of fluvial matter out of the body. It does not seem impossible that this should be the case, although at present we have no demonstration of the fact. We know that such multiplication takes place among the lower forms of plants, as the yeast, or ferment fungus (*Saccharomyces Cerevisiæ*), and that it also occurs among the vibriconds and monadinæ in the animal kingdom. Another interesting question, connected with these poisons, is the possibility of transformation or development. In the animal kingdom we have this phenomenon taking place, that an animal passing from its egg state to its adult stage is capable at each stage of multiplying itself, so that a number of creatures are produced at each stage of its growth, capable of attaining, under proper external circumstances, the adult stage. Now it may be that among these cell-poisons there are stages of development at each of which the cell is capable of propagating its own form and no other, till it meets with the proper external circumstances for a further change or development. Professor Huxley relates that on board the Rattlesnake, after they had been six weeks at sea, the cook got an attack of erysipelas; this spread through the ship and ceased. After this one of the sailors had mumps, and this also spread through the ship. There are other interesting facts bearing on this point, but I throw out these hints here as subjects full of practical importance to the sanitarian. Let me now say a few words with regard to the means of conveyance of poisons. The most obvious of these means are the atmosphere and water. The air, to carry most poisons, must be warm and moist. The poison of yellow fever spreads in hot climates; the poison of typhus is arrested by heat on the one side and cold on the other. It prevails, in fact, only in climates having a range of temperature between 40° and 62° Fahrenheit. At the temperature of boiling water all these poisons are destroyed—a most important fact, as we have in every household in Europe the means of destroying them. But there are other means of conveyance besides air and water. Articles of food, articles of wearing apparel, bedclothes, curtains, carpets, and all vessels and depositories containing the secretions of human beings, may retain the poison cells in all their integrity. These may carry the poison from household to household, disseminate them in our streets, our omnibuses, our railways, steamships, and public conveyances of all kinds. The drain may carry them into the sewer, and the sewer into the river, but in their course they escape from our ventilating shafts, our gulley holes, and open closets. They may be emptied into our wells and rivers, and conveyed to our bodies by means of spring water or river water. They may be shut up in drawers or in old closets (of which there are many striking instances on record), and, at any moment when brought in contact with the human system, they may start into life and activity again, to renew their ravages on systems predisposed to their action. That the

poison of a disease may exist, and every possible access to a system be present, and yet the disease be not taken, is well known. Instances frequently happen of persons living to old age, without having had any of the ordinary contagious diseases of mankind. It would be well to make a more accurate study of these cases. But we know something of the laws of predisposition to disease. We know, for instance, that persons who have had smallpox are not disposed to take it again. We know that in nine cases out of ten if persons have been vaccinated they will not take smallpox. This is one of the great triumphs of our modern civilization. It is the beacon of our hopes with regard to crushing out forever the poisons that can only be propagated in human systems. But our knowledge of predisposition extends further than this. We know that where the four great factors of our life have been scantily supplied, or vitiated, there predisposition, not only to idiopathic and self-generated disease exists, but to receive the germs of the poison fevers, of which I have been speaking. So well is this known, that we can point out certain external conditions which will so act upon the human system as to predispose it to certain forms of disease. Thus, among our working men and women who live in badly ventilated and overcrowded houses we find those who are most ready to take the poison of typhus. Among the underfed, the fever called relapsing, and which differs from typhus and typhoid, finds its most ready victims. Hence it has been called famine-fever. But no class or condition of men have been discovered who are not susceptible of these poisons. The medical man, who lives free from the influence of over-crowding or famine in his own home, is frequently stricken down with these fevers. The anxiety of the student, the statesman, or the prince may undermine his health, and render him a ready victim for the poison that lies concealed like a snake in the grass in his path. It is not necessarily among the over-crowded and badly-ventilated rooms of the poor, and the squalor and filth of our lowest classes, that scarlet fever selects its victims and commits the greatest ravages. The homes of the rich and the hearths of the comfortable middle classes of England are made desolate by this all-pervading scourge, and it is a mockery to say that we know the conditions of those who will be the subjects or the victims either of scarlet-fever, or its twin sister of mischief, diphtheria. That both these diseases depend on a special poison, which can be communicated through the medium of the air, and preserved in activity or inanimate substances, as clothes and excreta, I have no doubt; but we cannot predict with any certainty who will be their victims."—*London Chemist and Druggist*.

Bibliographical Notices.

The Practice of Medicine. By THOMAS HAWKES TANNER, M.D., F.L.S., Member of the Royal College of Physicians, Vice President of the Obstetrical Society of London, &c. &c. From the Fifth London Edition. Enlarged and Improved. Pp. 835, 8vo. Philadelphia: Lindsay & Blakiston. 1866.

WE are glad to see this eminently practical work in a form bringing it within the reach of the American practitioner. The enormous cost of foreign books at the present time must of necessity limit the importation of the original work to a very few copies, and the profession here would be so much the losers if it were not for this re-print. We cannot forbear to express the hope that the author may be to some extent the gainer pecuniarily through this re-publication.

As we have designated it above, this is a most valuable, practical work. It covers over a vast range of subjects, being more comprehensive in its plan than any similar work that we are acquainted with, and yet giving to each subject space enough to present it fully in all its details in a precise, accurate, scientific style, while it is entirely free from the dryness which it is so difficult to avoid in attempting to give a concise account of a disease. Illustrative cases are frequently introduced, which add much to the interest of the volume.

The first fifty pages of the work are devoted to the blood and its various morbid conditions, and we observe that the author has kept up with the progress of chemical and microscopical researches on this most important fluid; from this he passes on to general diseases. The work is divided into sixteen parts, each including a distinct class of diseases, and concludes with an appendix of formulæ, &c., of more than a hundred pages, which is very instructive.

To review such a book is much like reviewing an encyclopædia. One can hardly open it anywhere without finding something worth remembering. The general tone of the author's views in the treatment of disease is shown in the following extract, which concludes his chapter on Inflammation:—

“From all this the conclusion appears evident, that in the treatment of acute inflammatory diseases practitioners must be content to trust more to Nature and less to heroic remedies than they have been in the habit of doing; for it is highly probable that though we may be able to guide inflammations to a successful termination, yet we cannot cut them short, and any attempts to do so will merely increase the patient's danger. The risk of all inflammations being in proportion to the weakness of the patient, the amount of blood-poisoning, and the complications which arise, it surely cannot be wise to go out of our way to produce debility, and thus favor the occurrence of toxæmia. But the fact is, and it ought never to be lost sight of, that ‘the body possesses a perfectly marvellous power whereby it protects itself against diseases, wards off some, cures in the best and speediest way many of those that have set in, and by a process of its own brings others more slowly to a favorable issue. This innate power is called the *vis naturæ medicatrix*, being justly appreciated by physicians and philosophers, and highly praised by them. Of itself it is

sufficient to cure numerous diseases; in almost all, its influence is beneficial; and, moreover, the remedies that are in their own nature the best, are only of use in so far as they stimulate, direct and control this inherent virtue.' ”*

In turning over the leaves we come occasionally to a subject in which the author has omitted to give some recent observations or practical results of importance, which probably have escaped his observation. Thus, in treating of measles, he says nothing of the very interesting experiments of Dr. Salisbury, in which it is shown that a disease very like if not identical with measles may be produced by inoculation with the fungus growing on wheat straw, thus accounting for its frequent otherwise inexplicable appearance among our troops during the late rebellion. In speaking of chorea he fails entirely to mention the one remedy which comes nearer to being a specific for this disorder than any other, namely, arsenic, particularly in the form of Fowler's solution. In his remarks on the expediency of tapping the chest in cases of extensive effusion, he discusses the *pro* and *con* of the operation as if the question of danger had not been entirely set at rest by what we may call the American method, devised by Dr. Morrill Wyman, of Cambridge, and so often practised with complete success and freedom from severe symptoms by our townsman, Dr. Bowditch. Of this operation he can hardly have heard, as he does not allude to it, and the operation which he describes, of opening the cavity with a large trochar, introducing a probe and cutting down on it at another point for the passage of a seton, so that an India-rubber drainage tube may be employed, cannot be compared with the trifling operation of Dr. Wyman for safety or efficiency in most cases.

The opinion of Dr. Tanner, as of a man of practical mind, extensive observation and sound judgment, is of value on the great subject of medical discussion at the present time—the cholera. Here is what he says on the pathology of this disease:—

“The only explanation which can be given of the cause of cholera is, that it is due to some *materies morbi*—a septic agent—the existence, increase, power and transmission of which from place to place is favored by some particular state of the atmosphere, associated, probably, with a high temperature. The action of the poison is undoubtedly encouraged by filth of all kinds. As far as I can glean from the recorded evidence—and I have carefully studied the subject—it certainly appears to me to be, to a certain degree, contagious: in other words, I believe that human intercourse has a share in propagating the disease, though it is not the only means of effecting its diffusion. We must remember, however, that cholera, like other contagious disorders, can only be taken by a person predisposed to disease: we may indeed compare a contagious or infectious disorder to a seed, which, unless put into a fit soil, undergoes no change—does not grow or take root.”

The American edition of Dr. Tanner's book is printed in large, clear type, and is furnished with a very full index, covering seventeen pages in double columns, which is a very valuable appendage to

* *Conspectus Medicinæ Theoreticæ.* By Jacob Godfrey.

it. We most cordially commend it, as a whole, to our professional brethren, as containing the fullest and most enlightened views of the medical profession, and the most recent information concerning the wide range of subjects which are compassed within its plan.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 22, 1866.

THE CHOLERA CONFERENCE.

As our readers are by this time fully informed, the history of the present epidemic of cholera has very generally impressed the medical mind, both in this country and in Europe, with the idea that its propagation has been to a very great extent through direct transmission from one focus of disease to another. Leaving out of view the question of direct contagion in the sense in which that word is ordinarily used, the facts are too notorious to be disregarded, that its progress has been almost without exception in the direct line of travel from the source of its original outbreak at the last great Mohammedan celebration of the Bairam. In view of the earnest discussion which has sprung up, unsettling to a very great degree opinions heretofore generally held by the medical profession, it was a very wise move on the part of the French Government which has led to the proposal to the different nations of Europe to send delegates of medical men to a convention to be held at Constantinople, to discuss in the fullest manner all the questions concerning the origin and cause of Asiatic cholera, with a view to the establishment of such sanitary and restrictive measures as shall seem the most likely to limit its ravages now, and check them at the outset hereafter.

In this convention the United States have been invited to take a part; and a few days since the President sent to Congress a message transmitting the correspondence of the Secretary of State with the French Minister, together with other papers relating to the proposed international convention. The Secretary of State promises to give the subject his attentive consideration, and on the 21st of last November asked the opinion of the Surgeon-General of the United States, and for any suggestions he might be disposed to make in the premises. In reply, the Surgeon-General proposes that he be empowered to designate two of the surgeons of the Medical Staff of the United States Army as members of such a commission. The Government has also received assurances of the cordial coöperation of the Turkish Government in the proposed conference, Lallah Effendi, the chief physician of the Imperial Court, and Dr. Barthollette, Counsel of Health, being nominated as its representatives. A cordial welcome to the delegates is promised by the Court.

It does not appear by the above that any final action has been taken by our Government by the appointment of delegates, so that the question is still fairly open as to what is the best method of selection and who are the best men to be selected. And here we would frankly say, that we are decidedly of opinion, that the best method of secur-

ing the best representatives of the medical profession in this country to attend the proposed conference is *not* the method proposed by the medical head of the army. It was hardly to be expected, we suppose, that Mr. Seward could have any very clear idea of the best way of getting at the men most fitted for the important offices in question, and it was the most natural thing for him to turn to the medical bureau for advice. Equally natural was it for the Surgeon-General to look for the most fitting men for this appointment among that class with which he was best acquainted, and which he naturally looks upon as constituting a distinguished class, if not the very élite of the medical profession. It should not be forgotten, however, that in discussing the important questions which will come before the conference, qualities of an eminently judicial character are called for. The soundest judgment and the most discriminating acumen, together with the most ingenuous fairness and freedom from prejudice of opinion, should characterize all who are entrusted with the responsible duties of which we are speaking. It is also highly desirable that the delegates should be men of practical experience, who have had a personal acquaintance with cholera as it has appeared during former epidemics in our large cities. Now however distinguished the medical officers of the army may be (and there are many of them who do great honor to their profession and the country), yet we think it can hardly be claimed that the greatest names of the profession are inscribed on the roll of the Medical Staff; nor is it so likely that the desired practical experience can be found within that body as outside of it. The questions involved are of national importance, not mainly connected with the medical welfare of the army. It is, therefore, to the American Medical Association that we feel the question should be referred, in order that the gentlemen most gifted with those qualities which we have designated, together with many others desirable in representatives of the whole profession in a European convention, should be selected for this important office. We feel that the President and Vice Presidents of that Association would constitute a body much more likely than any one man to designate the most fitting representatives of the whole country. We mean no disparagement to the Surgeon-General, for whom we entertain the highest respect; only that the method we propose seems to us the best calculated to meet the wishes of the whole profession, and to lead to the best results. As it does not appear that the delegates are yet appointed, or the day for the conference even fixed as yet, we trust it is not too late for the selection to be made in some such way as that we have proposed.

Council of Hygiene.—We have received from the so-called Citizens' Association of New York the following resolutions adopted for the prevention and mitigation of cholera. The Council is composed of the following officers and members:—Joseph M. Smith, M.D., *President*. Willard Parker, M.D., *Vice President*. Stephen Smith, M.D., *Secretary*. Drs. Edward Delafield, James Anderson, James R. Wood, Alonzo Clark, Elisha Harris, Isaac E. Taylor, Alfred C. Post, Henry D. Bulkley, R. Ogden Doremus, Charles Henschel, John W. Draper, Gurdon Buck, *Members*.

Whereas, The commercial and social relations of the cities, villages

and communities of the State have become so intimate by the great facilities for travel, that contagious, infectious and epidemic diseases are rapidly and widely disseminated from populous towns, where they are fostered and frequently generated by the neglect of sanitary works, to other towns along the principal public thoroughfares, and to the most remote rural districts; and

Whereas, Cholera, the most fatal of modern epidemics, and soon apparently to visit this country, is governed by the same law of progression as other pestilential diseases, spreading from town to town along the great routes of travel, and selecting the filthy and unclean districts of cities for its ravages; and

Whereas, Experience teaches that the communicable diseases of towns and epidemic cholera may be controlled, and frequently suppressed, by the timely and rigid enforcement of proper sanitary regulations; and that when the latter is prevailing its severity may be greatly mitigated, and its fatal issues prevented by the prompt and efficient treatment of its premonitory symptoms; therefore

Resolved, That the people of this State have a common interest in the public health of its cities and villages; and, for their own safety, as well as for the public good, should, with united effort, sustain every measure designed to effect sanitary improvements of towns, and to prevent the spread of pestilential diseases therefrom.

Resolved, That in view of the approach of Asiatic cholera, we urge the medical profession of the State of New York to form voluntary organizations in every city, town, village and community exposed to an attack of the epidemic, for the purpose of effecting, *first*, needed local sanitary improvements; and, *second*, to organize a corps of house-to-house visitors, who, in the event of the prevalence of cholera, shall visit the poor at their homes daily, and search out and promptly treat all cases of premonitory diarrhoea.

Resolved, That all such organizations be invited to correspond directly with this council, and with each other, in order to concert of action in the adoption and prosecution of measures of prevention and mitigation of cholera, and for the purpose of a systematic study of its various phenomena over a large field.

American Medical Association.—The seventeenth annual session will be held in the city of Baltimore, on Tuesday, May 1, 1866. The following committees are expected to report:—

On Prize Essays, Dr. Austin Flint, Sen., New York, Chairman.

On Quarantine, Dr. Wilson Jewell, Pa., Chairman.

On So-called Spotted Fever, Dr. James J. Levick, Pa., Chairman.

On Ligature of the Subclavian Artery, Dr. Willard Parker, N. Y., Chairman.

On Tracheotomy in Membranous Croup, Dr. Alex. N. Dougherty, N. J., Chairman.

On Rank of Medical Corps in the Army, Dr. C. S. Tripler, U.S.A., Chairman.

On Rank of Medical Corps in the Navy, Dr. T. L. Smith, N. Y., Chairman.

On Medical Literature, Dr. C. A. Lee, N. Y., Chairman.

On Medical Education, Dr. Samuel D. Gross, Pa., Chairman.

- On American Necrology, Dr. C. C. Cox, Md., Chairman.
- On Patent Rights and Medical Men, Dr. David Prince, Ill., Chairman.
- On Alcohol and its Relations to Man, Dr. Gerard E. Morgan, Md., Chairman.
- On Insanity, Dr. Alfred Hitchcock, Mass., Chairman.
- On Milk Sickmess, Dr. Robert Thompson, Ohio, Chairman.
- On the Relation which the Doctrine of the Correlation and Conservation of Forces bears to the Physiological and Pathological Condition of the Human System, Dr. S. L. Loomis, D. C., Chairman.
- On the Progress of Medical Science, Dr. Jerome Candee Smith, N. Y., Chairman.
- On Diphtheria, Dr. H. D. Holton, Vt., Chairman.
- On the Comparative Value of Life in City and Country, Dr. Edward Jarvis, Mass., Chairman.
- On Drainage and Sewerage of Cities in their Influence on Health, Dr. Wilson Jewell, Pa., Chairman.
- What Effect has Civilization on the Duration of Human Life, Dr. Augustus A. Gould, Mass., Chairman.
- On Disinfectants, Dr. E. M. Hunt, N. J., Chairman.
- On Compulsory Vaccination, Dr. A. Nelson Bell, N. Y., Chairman.
- On Strangulated Hernia, Dr. W. F. Peck, Iowa, Chairman.
- On the Causes and Pathology of Pyæmia, Dr. J. J. Woodward, U.S.A., Chairman.
- On the Use of Plaster of Paris in Surgery, Dr. James L. Little, N. Y., Chairman.
- On the Etiological and Pathological Relations of Epidemic Erysipelas, Spotted Fever, Diphtheria and Scarlatina, Dr. N. S. Davis, Ill., Chairman.
- On Meteorology, Medical Topography, and Epidemics,

Dr. J. C. Weston, Me.	Dr. D. Francis Condie, Pa.
" P. A. Stackpole, N. H.	" T. Antisell, D. C.
" C. L. Allen, Vt.	" O. S. Mahon, Md.
" A. C. Garratt, Mass.	" T. M. Logan, Cal.
" C. W. Parsons, R. I.	" R. C. Hamill, Ill.
" B. H. Catlin, Conn.	" J. W. H. Baker, Iowa.
" E. N. Chapman, N. Y.	" Abm. Sager, Mich.
" E. M. Hunt, N. J.	" J. W. Russell, Ohio.

WM. B. ATKINSON, *Permanent Secretary, Philadelphia.*

The Chicago Medical Journal has passed out of the hands of Drs. DeLaskie Miller and Ephraim Ingals into those of Drs. E. L. Holmes, H. M. Lyman and R. M. Luckey. From the well-known ability of the new Editors, in the midst of such a large and active community as that of Chicago, we feel assured that the interests of the medical profession will be well represented by them, and the well-earned reputation of the Journal be more than sustained.

Boston City Hospital.—The following appointments have been recently made at the Boston City Hospital. The selection of house physicians and house surgeons at this establishment is based, as it

should be in all hospitals, upon merit and a thorough examination in all branches of medicine.

Admitting Physician—Dr. George Derby.

House Officers for ensuing year, Medical Department—J. F. Alleyne Adams, Charles P. Kemp.

Surgical Department—James B. Brewster, L. F. C. Garvin.

Ophthalmic Department—Dr. O. F. Wadsworth.

It gives us great pleasure to announce that Surgeon Norton Folsom, of Cambridge, a late graduate of the Massachusetts Medical College, and who has served both as Acting Medical Inspector and Acting Medical Director of Weitzel's Corps in Texas, has been made Brevet Lieut.-Colonel of U. S. Volunteers for faithful and meritorious services.

Deaths and Marriages in Boston in 1865.—During the year 1865, Mr. Apollonio, the City Registrar, issued 2,866 certificates of marriages—94 less than the number issued the preceding year. The number of deaths last year in this city was 4,539; in 1864, 5,111.

Deaths in the City of Providence, R. I., during the month of January, 1866, 88. The births, marriages and deaths in Providence, in 1865, as compared with 1864, were as follows:—Marriages, 709 in 1865, or 30 less than in 1864. Births in 1865, 1,298; in 1864, 1,344. Deaths in 1865, 1,211; in 1864, 1,281. The population in 1865 was 54,595, which gives one birth in 42, one death in 45, and one person married in 38.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 17th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	32	35	67
Ave. mortality of corresponding weeks for ten years, 1856—1866	39.5	38.6	78.1
Average corrected to increased population	00	00	85.07
Death of persons above 90	-	0	0

ERRATUM.—The name of Dr. Bowen, Assistant Surgeon U.S.N., was by mistake printed "Rowen" on page 37 of the present volume.

COMMUNICATIONS RECEIVED.—Cases in Country Practice, No. XI.—Aluminum in Dentistry, by Augustus Mason, M.D.—Extracts from the Records of the Berkshire District Medical Society; Clinical Cases from the Berkshire Medical College, &c.

PAMPHLETS RECEIVED.—Reports of the Trustees and Superintendent of the Butler Hospital for the Insane, Providence, R. I.—Addresses at the Fifth Annual Session of the American Dental Association, by W. W. Allport, D.D.S., Daniel Brainard, M.D., and N. S. Davis, M.D., at Chicago, July, 1865.—Thirty-third Annual Report of the Trustees of the State Lunatic Hospital at Worcester.

DEATHS IN BOSTON for the week ending Saturday noon, February 17th, 67. Males, 32—Females, 35. Accident, 2—apoplexy, 2—inflammation of the bowels, 1—disease of the brain, 1—bronchitis, 2—cancer, 3—consumption, 16—croup, 2—debility, 1—diarrhoea, 2—diphtheria, 2—dropsy, 2—dropsy of the brain, 2—dysentery, 1—dyspepsia, 1—scarlet fever, 1—typhoid fever, 1—fistula, 1—disease of the heart, 1—infantile disease, 3—jaundice, 1—disease of the kidneys, 2—congestion of the lungs, 2—inflammation of the lungs, 3—measles, 1—old age, 1—premature birth, 1—puerperal disease, 2—unknown, 7.

Under 5 years of age, 21—between 5 and 20 years, 7—between 20 and 40 years, 14—between 40 and 60 years, 14—above 60 years, 11. Born in the United States, 39—Ireland, 22—other places, 6.

THE

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No. 5.

WHETHER CHOLERA IS CONTAGIOUS.

[Communicated for the Boston Medical and Surgical Journal.]

By JACOB BIGELOW, M.D.

WITHIN the present century, cholera, a disease indigenous in hot climates of the East, has, at various intervals, made its appearance in the temperate latitudes of Europe and America. It is now again exciting interest from its possible and perhaps probable approach to this country.

The experience of the last thirty or forty years has led a majority of medical men who have observed the disease to believe that, as a general law, it is not contagious. In this belief I must individually remain, until evidence more satisfactory than any which has yet appeared shall justify an opposite conviction.

The great epidemics of 1830 and 1847 had a remarkable coincidence in the path which they pursued, and in the order and dates of their arrival in different cities. They seem to have followed certain great routes of travel, and to have avoided others equally frequented. According to Leségué, they both visited consecutively, and in corresponding months, Tiflis, Astrachan, Moscow, Petersburg and Berlin. In 1831, cholera did not take the most frequented route from Berlin to Paris, but passed along the shores of the Baltic, crossed over to Sunderland, went down to London, and again crossed the channel and arrived in Paris about six months after its appearance at Berlin. A disease propagated by contagion of any kind would hardly have avoided the most frequented thoroughfares from Berlin to Paris, while it occupied half a year in going round by England.

The epidemic now or lately prevailing in Europe appears to date back at least nine months, at which time it existed among the caravans of pilgrims visiting or returning from the city of Mecca. In the middle of May last it was at Alexandria and Cairo, in June at Constantinople, Ancona and Marseilles, and in November at Paris, Havre and other European cities.

Thus it appears that cholera has now existed in Europe from three

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to eight months, among cities having constant commercial intercourse with seaports of the United States, during which time thousands of passengers and tens of thousands of bales and packages have been landed in our maritime cities. If cholera were as contagious or portable as many believe it to be, it ought to have begun and perhaps finished its work in many of our seaports before this time.

Epidemics require two things for their introduction and extension. These are—first, predisposition in the inhabitants of the place visited; and, second, the arrival or presence of an exciting cause. This cause in some epidemics, such as smallpox, is contagion. In others it is an occult influence, not yet discovered nor understood, nor known to be controlled, except in some instances, by hygienic agencies. No country, I believe, has succeeded in keeping out cholera by quarantines, and no country, as far we know, can produce it artificially or retain it after the predisposition has disappeared. In its own time it moves on thoroughfares where men are travelling, and spreads in cities where they are stationary, for no better known reason than that mankind are its necessary food, and that where there are no people there can be no cholera. But why, of two frequented roads or cities, it selects one and avoids the other, investigators have not yet been able to satisfy us.

The credit of having introduced the present epidemic into Europe, is by a sort of popular acclamation assigned to the hosts of squalid devotees who perform an annual pilgrimage to Mecca. Yet we are told that "the cholera exists every year among the caravans of Musselmans arriving at the holy cities," so that their supposed mission of forwarding the cholera to Europe, in most years fails to be performed.

Cholera, like influenza and some other migratory diseases, has usually but not always advanced from east to west. Of the vehicle in which it travels, or the course it is next to take, we know about as much as mankind knew of the cause of lightning before the discovery of electricity. Its conveyance and propagation have been ascribed to air, to water, to material foci, to electricity, to ozone or to the want of it. Of late, in consequence of the vast development by the microscope of the existence everywhere of minute living organisms, it has become more common to ascribe the arrival of this and other like epidemics to certain unseen "germs" which are called seeds or ova, cryptogamic or animalcular, according as the fancy of the theorist inclines him to adopt a vegetable or an animal nomenclature.

But in this, as in many other cases, it is easier to trace an analogy, or to assume a cause, than it is to prevent an effect. Although inquirers have been indefatigable in their attempts to enlighten the world on the means of ridding ourselves of the presence of the various offensive cotenants of our globe, yet no crusade has yet succeeded in banishing from our fields and houses the unwelcome swarms of

mosquitoes, worms, grubs and flies, which molest us with their annual presence; nor in suppressing the blight of grain, the potato rot, or the peach-tree disease. Happily some, if not most of these have their periods of abatement or disappearance, and this rather through the order of Providence than the agency of man. Cholera seems to abide in the same category. We know little of its exciting cause, and not much of its prevention, except that by following in our personal habits the dictates of reason and experience, we diminish both the frequency and danger of its occurrence.

Whatever may be the cause or vehicle of cholera, credulous and excitable persons are impatient of suspense, and are prone to cut a knot which they fail to untie. When an epidemic disease first appears, some coincidence is always brought to light which is supposed capable of accounting for it. The arrival of a ship, the opening of a trunk or the washing of a garment, are among the most frequently accepted causes. But as these events have happened a thousand times before, and apparently under like circumstances, without any known results, it has been thought necessary by some of our later writers to narrow the compass of actual exposure down to the reception of the morbid excretions of one individual into the digestive canal of another. The first impression made by this announcement must, if true, be one of relief, the danger not seeming likely to happen very often. But to the possibility of such danger we can never oppose an absolute negative, so long as we persist in eating smelts and flounders caught about the mouths of our drains, or even turnips, salads and strawberries raised at Brighton. The risk, however, is so small, that most persons will prefer to take it, rather than to deprive themselves of food or luxuries.

Of the many sensation tales printed and reprinted about cholera, and the supposed instances of remarkable communication or arrestation, it is sufficient to say that they are frequently interesting, being fully as dramatic as they are probable.

In the same regard we cannot help noticing that credulity, and perhaps private cupidity, have caused much stress to be laid on the supposed preventive efficacy of what are called "disinfectants," a mysterious word which implies a thing assumed but not proved to exist. We have deodorizers, such as chlorine, charcoal, &c., which by their combinations render certain effluvia imperceptible to our senses. But that these are not *disinfectants*, there is most abundant evidence. The narrative, then, of the physician at Malta, who covered certain surfaces in vessels with oil, and had them "disinfected by chlorine gas," after which "no new cases occurred," is to be classed with other like results, with which the medical press always abounds at the close of epidemics.

In clean and well-regulated cities of temperate climates, cholera is far from being the most formidable of epidemics. A greater part of its victims are the miserably poor, the worn out, the ill provided, and

the intemperate, in whom this disease only anticipates the date, but does not greatly increase the annual or biennial number of deaths. Its mortality in our northern Atlantic cities rarely amounts to one per cent. of the population in a given place or year, so that a man may reside through an epidemic in one of these cities with less risk than he can take a pleasure voyage to Europe. After having witnessed many cases of cholera in this and other cities, I am farther satisfied that it affords one of the easiest modes of exit from the world.

People who would avoid or prevent cholera should cultivate equanimity, regularity of life and habits, cleanliness, salubrious exercise, temperance, and avoidance of all excesses. When they have done their duty in providing for the care of the sick, allaying public panics, and abating public nuisances, they may safely dismiss their apprehensions. Little good and some harm is always done by the indiscreet agitation of a subject which is to a great extent beyond our control. A single or sporadic case of cholera occurring in a village of a thousand inhabitants may attract little notice, and perhaps pass without record; but a hundred cases in a city of a hundred thousand inhabitants make an aggregate which generally causes some panic, though the proportion is exactly the same, and the panic equally unnecessary. It is possible that the supposed immunity of country districts in comparison with cities may be accounted for by the fact, that in the sparse population of country towns cases are less liable to be detected and published.

I may be excused for repeating the following remark from among some "Aphorisms" published by me about thirty years ago, when the disease was new and little known among us. "Should the cholera continue to prevail for three years throughout this continent, it would cease to interrupt either business or recreation. Mankind cannot always stand aghast, and the wheels of society at length would be no more impeded by its presence than they now are by the existence of consumption, of old age or of drunkenness."

CASES FROM PROF. GREENE'S CLINIC—BERKSHIRE MEDICAL COLLEGE.

[Reported by FRANK S. ABBOTT, M.D., Clinical Clerk, and communicated for the Boston Medical and Surgical Journal.]

CASE I.—*Morbus Coxarius*.—Mary C., aged 4 years. Was always healthy until about eight months ago, when she began to complain of pain in the left knee, limped a little, was restless and oftentimes feverish at night; lost appetite, flesh and strength. For the last three months has not walked at all, or at least has borne no weight on her limb. For the last four or five months she has complained more or less of pain in the hip, but not severe. She is now

pale and emaciated. On examination of the affected limb, it was found smaller than the other, and apparently longer than its fellow. Upon measurement, however, there was no difference. Absence of swelling or tenderness, and freedom of motion at the knee, excluded that joint as the seat of the disease. Deep pressure over the *ileo-femoral* articulation gave her great pain. The muscles about the hip were wasted, giving it a flattened appearance, and the *ileo-femoral* line was almost entirely obliterated. Pressure on the sole or at the knee gave her much pain. Upon carefully questioning the mother, she remembered that about eight months before, while running, she fell and cried, "Oh mother, I have hurt my hip," but was soon at play again as before.

Prof. G. remarked that this was a typical case of coxalgia. The early pain in the knee, without other evidences of inflammation—this being merely a reflex symptom, and one of the most prominent in the early history of this malady—the marked constitutional disturbance at this time showing that some important organ was suffering, the gradual accession of pain and tenderness at the hip, the flattening, the pain upon pressing the *caput femoris* against the *acetabulum*, all pointed unequivocally to the nature of the disease. The elongation of the limb was merely apparent and not real, as ascertained by measuring from the superior spinous process of the ilium to the malleolus. It occurs from the tilting of the pelvis, and it is doubtful if the elongation spoken of in the books as the result of intra-capsular effusion ever *really* exists. One point should be especially noted here, namely, the *reported full* of the child about the time the disturbance of its health was first noticed. Dr. G. said that in a majority of the cases he had seen, some such testimony would be elicited, provided the attention of the friends *was called to it*, and there was no doubt in his mind that in a very great proportion of these cases the disease was local in its origin. The idea generally entertained was that coxalgia was merely the local expression of a constitutional fault, which was generally a tubercular diathesis. It is true that these inflammations are most likely to occur in scrofulous subjects, in whom a very slight local injury may awaken serious organic changes; and it is true that inflammation established in the joint of such a person will, uncontrolled, give rise to exudations more or less nearly allied to tubercle; but without arguing the question at length, one single fact was almost sufficient to settle it, and that was, that if by any means the pressure and friction between the opposing surfaces was removed, both local and constitutional symptoms were relieved; and, if taken early, the *great majority* of patients would recover without *any other treatment*.

This, then, was the great indication in this case. Apply a Sayre's splint, making sufficient extension to separate the head of the bone from the acetabular surface. There is not sufficient contraction of the muscles to prevent this; if so, we should tenotomize them. She

will then be free from pain, will sleep quietly, and as soon as she is accustomed to the instrument will walk and run with ease, inasmuch as the weight of the body is now upon the perinæum. She is to have also syrup of iodide of iron, a good, nourishing diet, and to be kept as much as possible in the open air.

The splint was applied, and in six weeks the child came walking easily into the clinical room, looking rosy, and complaining of no pain. Six months later, the splint was discontinued, she having perfectly recovered.

CASE II.—*Encysted Tumor*.—John G. has a swelling just over the parotid gland. The fact that the tumor is movable, circumscribed, painless, fluctuating, and has been three years growing, and that the general health is unimpaired, is sufficient to warrant the diagnosis of simple encysted tumor.

A simple incision was made down to the sac, which was enucleated without difficulty. Wound healed by first intention.

CASE III.—*Carcinoma Uteri*.—A. S., aged 55, unmarried. Had one child when sixteen years old; none since. Has had repeated attacks of pneumonia and pleurisy within fifteen years, to relieve the effects of which, as she says, she has worn a seton in the chest for ten years constantly. Says she had "ulceration of the womb" five years ago, which was cured by local treatment. A year ago, began to suffer pain through the pelvis, which has come to be very severe, often of a lancinating character. It is aggravated in urinating. Occasionally a slight bloody discharge. General health fair. An aunt and two sisters died of cancer. Prof. Green said, we might have here either an inflamed or displaced uterus, or some morbid growth involving the neck or the body of the organ. If the latter, it might be benign or malignant. If benign, the *probabilities* in this case would be that it was a submucous, fibrous tumor, but the history of the case pointed strongly to cancer. We were not, however, to make a diagnosis until we had made a *thorough* exploration of the parts. The same rule should guide us as in examining other parts of the body, to wit: *possess yourself of all available evidence*. Without this critical examination and thorough analysis of his case, no man can be an *accurate and reliable* diagnostician or therapist in the surgical diseases of women.

The patient was taken to the ante-room and examined. Sound passed into the uterus, which measured $3\frac{1}{2}$ inches; the anterior lip nodular and of stony hardness, and whole anterior wall of cervix blended with posterior wall of bladder. Thus the case is clear as one of carcinomatous uterus.

Treatment.—Live well; take tinct. ferri muriatis, twenty drops, after each meal; two grains of conium at night to relieve pain, and continue to wear the seton. The discharge from it is to a certain extent eliminative, and may have quite an influence in retarding the progress of the malignant disease.

[To be continued.]

USE OF THE MICROSCOPE AS A MEANS OF DIAGNOSIS.

[Read before the Berkshire District Medical Society, December 27th, 1865, and communicated for the Boston Medical and Surgical Journal.]

By FRANK K. PADDOCK, M.D., Demonstrator of Anatomy in Berkshire Medical College.

GENTLEMEN,—Very little was known of the microscope as it is now made until the latter part of the sixteenth century. For a long time previous to this period single lenses had been constructed and used quite generally, but the combination of two or more lenses in form of a compound microscope was not effected until the simple magnifying glass had been exhausted of its powers of revelation and capability of improvement.

The first compound microscope was constructed before the seventeenth century, and although since then a very large number and an almost infinite variety have been invented, they may all be classified under two general heads—viz., the simple, and compound microscopes—the essential difference between them being, that with the simple microscope, of which you have an example in the common pocket magnifier, the object examined is itself seen enlarged by the convergence of rays of light passing directly from it to the eye, and may consist of one or more lenses; whereas the compound microscope must in all instances possess two or more lenses, one of which receives the rays of light reflected from or transmitted through the object, and with them form a magnified image that is viewed through the remaining lens, instead of the object itself. All other differences in microscopes have reference to the arrangement of, and facilities for using these lenses.

Many and great were the difficulties the early microscopists had to overcome, even after the principle of the compound microscope was discovered, before they were able to construct one that would accurately magnify minute objects. Perhaps one obstacle to their advancement was an incorrect idea of the microscopical appearance of objects which they had never distinctly seen nor heard described. But by far the greatest difficulty was the correction of the spherical and chromatic aberration of the lenses.

The comparative value of all microscopes depends upon the distinctness with which they define the outline of objects. The compound microscopes first constructed defined the central portion of an image tolerably well, but towards its circumference a dimness and indistinctness of outline became apparent that destroyed the character of the object. This was in consequence, as subsequently proved, of the spherical aberration of all convex lenses; so called because the rays of light transmitted by the circumference of such lenses do not meet at the same focus with those that pass through their centre, and thus produce an indefiniteness of outline. This difficulty was finally remedied, after years of experiment, by passing the rays through a concave lens also, which, although it diminished the power of the convex lens, completely corrected the spherical

aberration, and produced an image whose outline was as distinctly defined as its centre.

After this improvement had been made, it was found that while the image of the object was well defined its color was varied, in consequence of the unequal refrangibility of the colored rays that compose white light, the lenses acting the part of a prism, bringing the violet rays to a focus at one point, the red at another, thus producing all the colors of the spectrum. To correct this chromatic aberration, two varieties of glass were employed, viz., the flint and crown glass—the aberration of one just counterbalancing that of the other. A combination of this kind was first made by a French microscopist in the year 1823, forming an objective free from either spherical or chromatic aberration, which is called the achromatic objective. Since that time other but minor improvements have been devised and additions made to the microscope as originally constructed, so that nothing further seems to be demanded of it in the present state of science to make it a perfect instrument.

Of all sciences, medicine is undoubtedly the most indebted to the microscope. The mysteries which detained the world in its progress from ignorance to wisdom that have been solved in the last twenty-five or thirty years, without it would still have remained for the future to develop. The intimate knowledge of histology possessed by the anatomist of to-day must still have been wanting, and the diagnostician would yet be obliged to speculate about the pathology of diseases which his unassisted eye could never interpret.

In the early history of the microscope, when it was first employed in the study of the minute structures of the body, and during the infancy of microscopical anatomy, it fell into considerable disrepute in consequence of the variety of descriptions that different eminent anatomists gave of the same tissue. One, for instance, said that the human blood corpuscle is spherical, another contended that it is a circular disk with slightly concave surfaces, and still another described it as a circular disk, like a piece of money flattened upon its sides, having a granular or rough exterior. This discrepancy of opinion was not owing to a want of accuracy on the part of the observer, nor to any fault in the instrument, but simply to the different conditions under which the blood was examined. It has now long been known that the human blood corpuscle is a circular disk, about $\frac{1}{3200}$ of an inch in diameter, having a slightly biconcave surface if examined when first taken from the body, but if allowed to come in contact with water losing its biconcavity and becoming globular from imbibition. On the contrary, if it is permitted to remain in the air a short time, a portion of the water normally contained in the corpuscle evaporates, leaving its circumference wrinkled and shrivelled. All of these appearances of the corpuscle can sometimes be seen in a single field under the microscope, when water has been added to one portion while the remainder is drying.

Similar misrepresentations of the microscopic appearances of nearly all the tissues were made, before all of the different conditions and circumstances attending their examination were fully recognized and a perfect description of their normal appearance permanently made out.

Another reason why the microscope suffered in reputation was because it failed to meet the expectations of the most enthusiastic. The signs of disease which the microscope furnishes are not *per se* of very great value; it is when taken in connection with other abnormal conditions that they afford the physician the most assistance. The microscope does not create, it merely develops for our observation and study that which would without it exist in forms too minute to be seen with the unaided eye. The microscopists who at one time claimed that with the microscope alone they could positively diagnose disease, were necessarily disappointed; and in consequence of its failure to perform all they declared it would, they would exclude it altogether in forming a diagnosis. It is enough to know that it will aid in establishing one, to commend its use to me.

The microscope has been supposed to give us the power to decide between malignant and benign growths, but as yet it comes far short of this. It was found by microscopical examination that some cancerous growths contained in the fluid, or, as it is called, the cancer juice, which exists in the stroma, irregularly shaped cells, having usually two or more nuclei. These cells, being unlike anything then found in any other tissue, were supposed to be pathognomonic of malignant growths, and the sweeping assertion was made by eminent professional men that their presence in any abnormal structure was conclusive evidence of its malignant character, and any tissue that did not contain them must be considered of a benign nature; so that the decision between malignant and non-malignant growths was to be determined only by the microscope. Its subsequent failure to do this occasioned a distrust of its accuracy, but not justly, however, for it has since been proved beyond controversy that these same cells exist in some growths that exhibit none of the other characteristics of malignancy; and, on the other hand, tumors are almost daily examined, whose malignant nature is not only evidenced by their symptoms but by their fatal result, that are entirely destitute of these cells.

In illustration of this fact, I show you a stomach, obtained *post mortem* from the body of a patient who died with well-marked symptoms of gastric cancer. The walls, you will notice, are completely infiltrated with a scirrhus deposit, producing great thickening and contracting the cavity of the organ to less than one fourth its normal size. No cancer-cells have been found in the exudation, although carefully examined with the microscope, notwithstanding there seemed to be sufficient reason to expect them. Yet, if found, they would have been merely a positive sign, and of no value negatively.

Within the last few years more of the real nature and true pathology of renal diseases has been discovered through the agency of the microscope than was ever known of them before; and it is in their diagnosis that the microscope is chiefly valuable to the profession.

"Bright's disease" is just about as fatal as pulmonary phthisis, and I think I am justified by the experience of professional men when I say that it is quite as common. Formerly this disease was not diagnosticated in its incipient stage, and the early symptoms were treated without reference to the pathological conditions they indicated. As soon, however, as albumen was detected in the urine, the nature of the malady was supposed to be established, and remedies were administered accordingly; but usually by this time the disease had made too much progress to be checked.

In the very early stage of Bright's disease, even before there is sufficient albumen in the urine to be detected by either heat or nitric acid, there may usually be found, and I think always if proper measures are instituted in a careful and persevering microscopical examination, uriferous casts. Of these casts there are three varieties, their difference depending upon the condition of the uriferous tubules. When these are formed, as you know, in an inflammatory state of the kidney, they are produced by the coagulation of fibrin which has exuded through the walls of the bloodvessels; they then pass off with the urine, retaining the exact shape of the tubuli, and usually having attached to their surface more or less of the secreting renal cells that line the surface of each tubule. When examined with the microscope, they have the appearance of cylindrical bodies of variable lengths, covered with epithelium, and are consequently called uriferous epithelial casts.

These cells, after having once been taken off by the fibrinous cast, will form again, just as epithelium does in other situations; this process of reforming and casting off these cells may continue a certain length of time without injury to the kidney, but if the inflammation continues long unabated, the cells will finally cease to be reproduced, and albumen will be exuded through the walls of the bloodvessels into the urine, replacing the secretion of urea.

And now another kind of casts is formed, which are larger than the first variety, and, being destitute of epithelium, are called from their transparency hyaline casts. In fatty degeneration of the kidney these latter casts are covered with granules of fat, which are more or less imbedded in their surface, in place of the epithelium of the first variety, and are called either granular or fatty casts.

In regard to the relative frequency of these three varieties, the epithelial are by far the most common, the granular next in order, and the hyaline the most rarely found, besides being from their transparency very difficult to study, even when present in considerable numbers. Not infrequently all of these varieties are present in the

same specimen of urine, owing to a progressive inflammation from given point.

Taken separately, the epithelial variety indicates a recent inflammation; the granular, inflammation co-existent with fatty degeneration; the hyaline, an inflammation of long standing, and usually attended with an abundance of albumen in the urine.

Blood and pus corpuscles are often found adhering to the casts and render the diagnosis more complete, but they do not necessarily indicate hæmorrhage or suppuration in the kidney, for they may come from any of the urinary passages.

If recognized in its early stage, Bright's disease, with proper treatment, is not infrequently checked; but after albumen begins to make its appearance and the large variety of hyaline casts are present in abundance, pathological changes have obtained that can never be removed, and whose progress is rarely even interrupted. Hence arises the great necessity for an early diagnosis of this fatal disease.

The urinary crystals afford the microscopist a very pleasant study, although a knowledge of their characteristics is not of any great importance to the pathologist. Spermatozoa are not infrequently found in urine, and afford the imagination almost unlimited scope as to their structure, physiology and function.

In illustration of the novel uses to which the microscope may be applied by the physician, the following little incident is submitted.

In one of our New England cities, not long since, a physician was treating a patient for uterine disease, and he found it necessary to prohibit any indulgence in sexual intercourse for a certain number of weeks, stating at the same time the reasons why it would be injurious. The patient comprehended apparently the necessity of the case, and remarked that she "would endure with pleasure anything that would hasten convalescence." She came to the office one morning, however, presenting, upon examination, sufficient evidence of coition to arouse the suspicions of the physician, who, without any remarks, secured a little of the vaginal mucus upon a piece of cotton and quietly examined it with the microscope, and found it alive with wriggling, squirming spermatozoa. The astonishment and chagrin evinced by the patient can easily be imagined when the doctor mentioned her delinquency, and decidedly informed her that unless she was conscious of a moral obligation she would be obliged to seek other counsel.

The value of the microscope to the profession can only be appreciated by those who use it and know practically something of its power and range of application; and I am certain that ere long its importance will be recognized by all, and that it will be used as generally as is the stethoscope.

Bibliographical Notices.

Circular No. 6. War Department, Surgeon-General's Office, Washington, November 1, 1865. Reports of the Extent and Nature of the Materials available for the preparation of a Medical and Surgical History of the Rebellion. Printed for the Surgeon-General's Office by J. B. Lippincott & Co. Philadelphia. 1866. 4to. Pp. 166.

THAT half of the above work which relates to the surgical history of the war was noticed in a late number of this JOURNAL. We propose to treat in the same manner that which relates to the medical history.

As the title implies, the Circular is merely a kind of courier intended to announce the advent of the more important work, which is to be issued at some future time. Of the value of this we can form some opinion from the excellence of the summary before us. In this we are told that

"The matter collected is partly statistical, partly pathological. The first category embraces the medical history of the several armies and general hospitals. The second consists of a number of memoirs and reports by medical officers on the causes, symptoms and treatment of the more important camp diseases, of numerous histories of cases and autopsies, of the fine series of medical and microscopical specimens in the Army Medical Museum, and of the results of the pathological studies conducted on the basis of these collections. In addition there are a large number of descriptions and plans of general hospitals, of reports on hospital organization, and some other miscellaneous matters."

Vast as is the accumulation of statistics, much less is determined by them than could be wished, and it is difficult to see how the result could be otherwise. The rush of inexperienced men to the field was incompatible with that knowledge of military routine necessary for accurate records, even had all the medical officers been sufficiently skilled in their profession to enable them to diagnosticate properly the diseases presented to their observation. It must also be remembered that physicians skilled in civil practice were obliged to confront maladies entirely different from those peculiar to the localities from which they came, or so modified by change of circumstances as hardly to be recognized. The necessity of filling inflexible blanks has also secured for an immense number of obscure diseases names not in the slightest degree applicable to them. The only refuge for the unfortunate surgeon who was unwilling or unable to commit himself to some precise diagnosis, was found under the head "other diseases of this order," the "order" being frequently based upon some fanciful idea of the *nature* of disease, infinitely more abstruse than the disease itself.

Thus, in the year ending June 30th, 1862, there were reported 7,449 cases the nature of which was so obscure that no diagnosis was made, and yet they appear under the head of miasmatic diseases, of which so long a list precedes them as to make it somewhat difficult to imagine how they could be excluded if they belonged there at all. We think, too, that some who cherish lively recollections of their

campaigns during the same period will be surprised to learn that the only parasitic disease known in the army was "worms." Itch, the statistics say, did not make its appearance until the following year. Notwithstanding the rarity of "inflammation of the stomach" in civil practice, 2,556 cases are reported among the soldiers in one table, and 3,762 in another.

We do not intend in any way, by these remarks, to reflect upon the author of the report. He was obliged to use such materials as offered themselves, and he has used them most judiciously. He recognizes the errors caused by mistakes in diagnosis, negligence, omissions and falsehood, but, at the same time, does not consider "that they are sufficiently numerous and important to rob the medical statistics of our army of their practical value."

We may certainly admit the correctness of some general conclusions, such as the excess of mortality from disease over that from wounds, the preventable character of the diseases themselves, the good health of the troops compared with that of the Allies during the Crimean war, and the influence of season and locality upon certain diseases.

The complicated nature of what is called camp fever is well shown in the pages devoted to that subject. There are included under the general designation of camp fever "all those cases which were reported during the first year of the war under the heads of typhus, typhoid, common continued and remittent fevers, and, during the second year, under the heads of typhus, typhoid, typho-malarial and remittent. This grouping is by no means intended to express a doubt as to the propriety of regarding typhus, typhoid or enteric and remittent fevers as distinct affections. But as the diseases have occurred in our army during the present war, the phenomena of these (two) affections have continually complicated each other in the same patient."

Much valuable information is given in regard to the character of the lesion in chronic diarrhœa and dysentery, the microscope having been applied in a masterly manner. As a remedial measure nothing seems to have exerted so much influence as climate, the number of the deaths varying with the latitude of the hospitals in which the patients were treated. Thus, the proportion of deaths in the hospitals of New England was one in forty-nine; in those of New York and New Jersey one to nineteen; in those of Pennsylvania and Delaware one to fifteen; in those of Maryland and the District of Columbia one to eleven; in those of Fortress Monroe and on the coast of North and South Carolina one to seven. This fact was recognized at the Surgeon-General's Office, and acted upon as far as the exigencies of the service would allow. Concerning the efficacy of drugs, the usual diversity of opinion exists. Acting Assist. Surgeon J. B. Trask, in speaking of the use of subnitrate of bismuth, says: "In not a case of the two hundred and seventy treated at the Finley Hospital during the period named and by this agent, was there a failure in promptly and radically arresting the disease, when given in the quantities and at the time stated." Influenced by this and similar reports, Dr. Woodward "tried the remedy quite extensively, and was cognizant of its use in a large number of cases of both acute and chronic diarrhœa. It generally showed itself a most valuable agent. In a few

cases, however, tormina, tenesmus and other dysenteric phenomena, with an aggravation of all the symptoms, followed its use, and in a very considerable proportion of the chronic cases it appeared to be wholly without effect. The subsequent experience of many surgeons in the field and in hospital gave similar results."

The prevalence of other diseases and their character are also spoken of, but we must reserve the brief space remaining for the Army Medical Museum, where there are preserved about seven hundred specimens, which illustrate the prevalent diseases of which the pathological anatomy is appreciable. The various lesions of camp fever are illustrated by one hundred and sixty specimens. The changes in diarrhoea and dysentery are shown in two hundred specimens, some of which have been drawn and beautifully colored while in a fresh state. But the greatest results have been attained in the microscopical department. Dr. Edward Curtis has succeeded in making preparations which show the ultimate changes of structure, and, although certain results are only alluded to briefly, it is evident that we can now boast of as thoroughly scientific laborers upon this side of the water as can be shown in Germany, where the most important steps have been taken. We await with impatience the appearance of the promised volumes, which we have every reason to believe will contain observations which will compare favorably with those of the school of Virchow, and throw light upon the nature of certain forms of disease, for the study of which we have enjoyed the sad privilege of most unexampled opportunities. The success obtained in the application of photography to the microscope may well excite our pride, as much higher powers have been used than were previously thought practicable.

If the more complete work of which this is a synopsis answers our expectations, it is clear that the medical history of the war will be a credit to the country and all concerned in its production.

Rhinoscopy and Laryngoscopy; their Value in Practical Medicine. By Dr. FRIEDERICH SEMELEDER, Physician in Ordinary to the Emperor of Mexico, &c. &c., formerly Member of the Medical Faculty of the University of Vienna, &c. Translated from the German by EDWARD T. CASWELL, M.D. With Wood-cuts and Chromo-lithographic Plates. Pp. 191, 8vo. New York: William Wood & Co. 1866.

The publication of this book is most opportune, at a time when many of our zealous young practitioners are training their eyes and hands to the somewhat difficult practice of the two methods of direct examination of parts heretofore beyond the reach of visual exploration. It contains the substance of two separate monographs by the author, nothing of either, however, being omitted which is not a repetition of something in the other.

The author gives a sketch of the history of Rhinoscopy and Laryngoscopy, and this is followed by a full description of the different kinds of apparatus employed in each and the manner of using them. A subsequent chapter under each head treats of the practical application of these new methods of exploration, introducing numerous interesting cases. The illustrations are intelligible enough, and so far answer the purpose for which they were intended, but cannot be said

to do much credit to the engraver. A full bibliographical list of works pertaining to the subject, more than half of which has been supplied by the Translator, is a very valuable appendage to the work. As a whole, we would commend it most highly to all interested in the new field of observation and practice of which it treats. It is very well printed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 1, 1866.

THE MASSACHUSETTS GENERAL HOSPITAL.

AMONG the many noble qualities of our people which the war of rebellion has developed or revealed, none has been more conspicuous or will remain longer in remembrance than that noblest of all Christian virtues, charity. To self-sacrifice, daring, endurance and resignation, which united have hitherto expressed the highest meaning of patriotism, we have added another quality—that of unlimited and untiring benevolence, and the record of the Sanitary and Christian Commissions will form almost as bright a page in our national history as our long roll of honor. In New England we may fairly say this was no new trait, created by the excitement and necessities of war: it was but the diversion from old channels of a spirit of public generosity, which had founded and sustained universities and hospitals and libraries, only enlarged as the grander object of an imperilled republic demanded. And now that we may again devote the best of our energies and resources to the interest of these institutions of our own creation, it will not surprise us to find that they have suffered during the war, or that they now ask for the continuance of that assistance, upon which for the last few years they have felt that they had but a secondary claim.

Among these objects of home charity we know of none which has a higher claim, not only upon this community but upon all New England, than the Massachusetts General Hospital; for there is scarcely a village, however small, in any of its States, which has not felt in the person of some of its inhabitants the direct benefit of its scientific skill since its foundation. It is not our present purpose to say anything further of its claims, for they are very forcibly and simply stated in the letter of the Trustees, a portion of which we publish below; nor do we think it necessary. It has always been liberally supported, and we do not doubt that a fund will now be raised which will pay its debt and relieve its present wants, and enable it also to carry out fully the noble purposes for which it was founded. The past years of struggle and more recent events have shown that it needs but some act of heroism, some sudden calamity attended by suffering to stir a fever of charity within us. Let us not forget that the same necessities are always present though hidden amongst us, and that what is contributed now and on reflection will relieve more actual suffering than those impulsive outpourings in behalf of some temporary claim.

There is a duty, however, for us as a profession to perform. We have

as students received a part of our education within its walls, and although we may not be able personally to contribute to its support, we can do much by making its wants and claims known to our patients who have the means to give, and we should not omit a single opportunity of using our influence in this direction. The Trustees are now actively engaged in soliciting subscriptions, and contributions may be sent to the Chairman of the Board, Henry B. Rogers, Esq.

"The Trustees of the Massachusetts General Hospital respectfully beg leave to call your attention to the following facts and statements.

"This Institution, with the exception of a similar one in the City of Philadelphia, is the oldest establishment of the kind in the country—it having been incorporated in 1811, more than half a century ago. During the first year of its history it received substantial aid from the State, but, with this exception, it has been wholly indebted to the voluntary contributions of citizens of Boston and other neighboring towns, for its successful foundation and its subsequent support and enlargement.

"Among these contributions have been many munificent subscriptions, donations, bequests and devises which have not only done honor to the charitable dispositions of the parties who made them, but are valuable evidences of the just appreciation in which it has been held by some of the wisest and best men among us for a period of fifty-five years. Indeed, there can be no doubt that this Hospital has been eminently useful to this Commonwealth and to the country generally. Its early establishment undoubtedly had a powerful influence in inducing the formation of similar Institutions in all the large cities of the land, and these have generally looked up to it as their model, and, in their organization and discipline, have, more or less rigidly, adopted the principles and rules which it originated. Since its foundation more than twenty-five thousand sick or disabled men and women, resident in Boston, or other towns within the Commonwealth, have been admitted to its wards, and all of them have received the best medical and surgical treatment and the most tender and careful watching that could be obtained. Whatever, in food or other appliance, would contribute to relief, or recovery, has at all times been supplied. Its medical and surgical officers have always been men of acknowledged rank. One of them, the Nestor of his profession, the venerable Dr. James Jackson, and another, his coadjutor, the late eminent Surgeon, Dr. John C. Warren, both of whom, indeed, may be said to have been among its principal founders and to have given to it the high reputation which it has since enjoyed; were respectively its daily Visiting Physician and Surgeon, the one for twenty, and the other for thirty-six, years. The example set by these distinguished men has in later years been followed by many of their co-laborers and successors. Many hundreds of medical men throughout the country, who, in the past or the present, have acquired eminence in their profession, have owed their celebrity, in great measure, to the instructions given in its lecture rooms or its wards; and not a few of them have been practically trained in their duties by a year's service as House-Physician, or Surgeon. Indeed, it is just to say that the profession generally is indebted for its present high standard of excellence, in no inconsiderable degree, to this hospital, and that without its influence the community would not have been able to attain the science and

skill, in the treatment of medical and surgical cases, that it now enjoys. The value and necessity of such an Institution, therefore, cannot be called in question. It constantly affords relief and care to large numbers of sick or disabled persons, who otherwise must suffer or perish; and, at the same time, it educates the profession, and raises the standard of education within it, upon which, in cases of sickness or accident, all men must rely.

"As has been remarked, the Hospital, in times past, has received many large gifts from the public. The greater portion of them has necessarily been absorbed in lands and buildings that are essential to the protection and comfort of the patients, but yield no income; and the remainder has been expended in carrying on the establishment from year to year, or invested in permanent funds. The amount of these funds at this time is \$230,389.03, and in most cases, by direction of the donors, the principal cannot be used, and the income is restricted to the support of free beds. From these resources, and the occasional payment of board by the patients, the Hospital has generally been able to sustain itself, though every now and then falling behindhand and relying upon the generosity of the public in the future to defray the deficiencies of the past. For some years past this deficit has become chronic, and within the last six or seven, owing to the smaller amount of contributions received, the constantly advancing price of labor and of articles of consumption, and the increased demand for free beds among the poorer classes, it has gradually swelled till, at length, it amounts to the gross sum of \$86,698.17.

Such a condition of things awakens serious apprehension, and cannot consistently be suffered to continue. The only adequate remedy for it, however, within our reach, unless the public will assist us with its bounty, is to bring the yearly expenses of the Institution within its yearly income. But this would involve the reduction of the average number of our free patients from one hundred and fourteen to fifty, and the refusal of admission to all beyond this number, who were unable to pay the cost of their maintenance.

"We doubt whether such a change of plan is desired, or will be sanctioned by our rich liberal men—and we know that the majority of the profession are of opinion that, whilst it will less adequately, than heretofore, meet the necessities of the poorer classes, it will reduce the Institution from a first-class Hospital to one of inferior grade, and materially injure its usefulness as a school of medical instruction.

"The average excess of Expenditure over the total Income, for the last five years, has been \$12,165.40, and for the past year, in consequence, mainly, of the increased cost of wages and articles of consumption, \$26,299.56. The number of patients treated during the same term of time in the wards, was 7,668, and of these, 1,601 only paid any sum whatever towards defraying the expenses of their maintenance, and but very few of them its full cost. During the past year the number of persons treated was 1,749, and of these 1,338 were free patients and paid nothing, whilst 361 paid board. Of the latter, however, 261 paid only a weekly board of \$4.50, though the weekly average cost of each of them was \$8.35. The average number of free patients during the last year has been 114, and the above table shows that the cost of maintaining an average of a little more

than half that number, namely, sixty, is equal to the entire income of the Hospital from every source within its reach, except the board of paying patients, which, as has been seen, covers only a portion of the cost of their maintenance.

"Such, in brief, is our financial condition, and such are the causes which have produced it. At no time, however, since its establishment, has the Hospital been more useful than at this moment. At no time have the medical and surgical claims upon it been so urgent or so likely to increase as now. The rapid growth of the City and its neighborhood, the additional burden thrown upon the poorer classes by the enhanced cost of living, and the multiplication of cases of disease and disability among our discharged citizen soldiers, inevitably tend to augment greatly the number of those who can only find relief in an establishment of this sort, and fully justify the conviction that this time-honored Institution should be adequately supported by the public, and its means of usefulness kept up to its past standard, and if possible, largely increased."

THE communication on cholera in the present number will be read with great interest, both on account of the age and eminence of its author and the character of the views it upholds, differing as they do from those of nearly all men of science at the present day. Our readers have been informed from time to time through our pages of the change which has taken place in the opinions of the profession in Europe respecting the communicability of this disease, and it is unnecessary to repeat here the facts upon which this change has been based. It is enough that they have been of a character to persuade many of the most conservative among them that the views they had hitherto entertained, identical with those of Dr. Bigelow, are no longer tenable. The communication, however, avoids the conclusion to which they lead by treating them as not worthy of credence. Even if this were the case, and nothing whatever had been observed in the present epidemic to directly substantiate the present belief concerning its nature, there is nothing *a priori* inconsistent with our real knowledge of this disease in the theory of its portability. Even in the accounts of its behavior and the interpretation adopted by the writer, we see nothing to which this theory is not only applicable but necessary to a solution. Whether specially under "the order of Providence" (a term in medicine apparently synonymous with undiscovered laws) or not, cholera travels, and must obey physical laws. It goes as smallpox goes, where man goes, and no faster. No one thinks of denying the contagious nature of this latter disease, we believe, and yet how many times has it been brought from Europe "during the past eight months?"

The discussions in the French Academy and other foreign societies and medical journals are rarely based upon "sensational tales," nor can Velpeau and all the eminent men in Europe and at home who believe in the communicability of cholera be regarded as "credulous and excitable persons." Neither do we consider it "sufficient to say of the supposed instances of remarkable communication or arrestation, that they are frequently interesting, being fully as dramatic as they are probable." One of these tales we cannot refrain from again

narrating, and in the words of Dr. Edwin Lankester, F.R.S., whose character for science and reliability cannot be called in question or lightly treated.

"In the year 1854 the cholera ravaged the metropolis. Up to Aug. 31st of that year not more than thirty cases had occurred in the parish of St. James, Westminster. On that night upwards of 100 cases of cholera occurred in the neighborhood of Broad St., and more than one half died. The next day the disease increased, and for four days it went on. Never was such mourning and desolation known in London since the days of the great plague. Upwards of 600 persons were killed in those five days. What could be the cause of this terrible outbreak? At first all was confusion. In the midst of the plague the late Dr. Snow accused the pump in Broad Street. It was shut up, and the plague ceased. After this event the Vestry appointed a committee to investigate the subject. On that committee were Dr. Snow, Dr. King, Mr. Marshall, the Rev. Mr. Whitehead, myself and others. We investigated the whole attack from house to house. At last the fact became only too evident, that wherever water had been drunk from the pump in Broad Street between the 31st of August and the 4th of September, there cholera had been the result. The pump was afterwards examined, and it was found that the well communicated with a cess-pool in an adjoining house. No evidence can be more convincing than that brought forward by this committee, that the impure water of this pump was the active cause of the outbreak of cholera."

There are other points in this interesting communication on which we differ from the writer, and to which we would like to allude at length, but we will only add to the closing aphorisms that we should not consider the cramps of cholera as a part of euthanasia, and that smallpox and scarlet fever have lost none of their terrors on familiar acquaintance.

Army Itch.—Several communications have lately appeared in the columns of some of our exchanges concerning the so-called army-itch, and much has been written about its being an unknown disease and "defying nomenclature and classification." We have examined a great many cases in returned soldiers and their families, and do not hesitate to express the opinion that it is simply scabies, that it is always caused by the ordinary itch insect, and that it readily yields to proper external treatment.

Massachusetts Medical College.—The Annual Commencement for the conferring of medical degrees will take place at the College on Wednesday, March 7th. The exercises will commence at 11½ o'clock, A.M., with a prayer by President Thomas Hill, D.D., after which graduates will read selections from their dissertations. The degrees will then be conferred by the President, and the exercises will conclude with an address by Prof. D. H. Storer.

The Corporation and Board of Overseers of the University will be present on the occasion, and the Fellows of the Massachusetts Medi-

cal Society, all medical students, and all persons who may be interested in medical science, are hereby respectfully invited to be present.

Wednesday, February 23, 1866.

GEORGE C. SHATTUCK, M.D.,
Dean of the Medical Faculty.

THE announcement in the daily papers that Prof. Jeffries Wyman has resigned his connection with Harvard University is a mistake. He has accepted the Professorship of Comparative Anatomy in the Medical Department, thus transferring his valuable services to a larger and higher field of usefulness.

At a meeting of the Boylston Medical Society of Harvard University the following award of prizes was reported by the Prize Committee:—

First Prize of forty dollars for an essay on "Reflex Paralysis," to James F. A. Adams.

Second Prize of twenty dollars for an essay on "Epidemic Cholera," to Charles P. Kemp.

THE Chicago City Hospital, which was taken possession of by the National Government during the war, and used as an ophthalmic hospital, has been restored to the City government, who have transferred it to the County, and it is hereafter to be used as a county institution, under the name of the Cook County Hospital. It is the only public hospital in a county numbering more than 200,000 people, the building is large and commodious, and the medical and surgical board is composed of well-known and able members of the profession in Chicago. There can be no doubt, therefore, of its being well filled and accomplishing great good.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 24th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	42	34	76
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.0	39.4	80.4
Average corrected to increased population	00	00	87.58
Death of persons above 90	-	0	0

COMMUNICATIONS RECEIVED.—Ergot in Puerperal Convulsions.

PAMPHLETS RECEIVED.—Reports of the Directors and Superintendent of the Washingtonian Home, Boston, for the year 1865.—Eleventh Annual Report of the Board of Trustees and Officers of the Southern Ohio Lunatic Asylum.

DIED,—At Lynn, Feb. 27th, Dr. Abraham Gould, aged 69 years.

DEATHS IN BOSTON for the week ending Saturday noon, February 24th, 76. Males, 42—Females, 34. Accident, 3—apoplexy, 1—asthma, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 1—cancer, 1—cerebro-spinal meningitis, 1—consumption, 21—convulsions, 2—cystitis, 1—debility, 1—diphtheria, 4—dropsy, 2—dropsy of the brain, 3—drowned, 1—typhoid fever, 2—disease of the heart, 5—infantile disease, 2—insanity, 1—intussusception, 1—disease of the kidneys, 2—inflammation of the lungs, 6—marasmus, 2—measles, 1—old age, 2—paralysis, 1—premature birth, 2—puerperal disease, 1—smallpox, 1—unknown, 1.

Under 5 years of age, 22—between 5 and 20 years, 8—between 20 and 40 years, 24—between 40 and 60 years, 11—above 60 years, 11. Born in the United States, 47—Ireland, 22—other places, 7.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, MARCH 8, 1866.

No. 6.

ON THE INHALATION OF ATOMIZED LIQUIDS, AND A DESCRIPTION OF INSTRUMENTS EMPLOYED.

To the Editors of the Boston Medical and Surgical Journal.

SOME months since, at a meeting of the Society for Medical Improvement, I showed two instruments for atomizing fluids for inhalation. One of these was the hand instrument of Dr. Andrew Clark, after Bergson, and the other the steam apparatus of Siegle. This means of applying remedies to the throat and air passages is, at the present time, sufficiently well known to the profession of this city and vicinity, but our brethren in other parts of the State are probably not so well acquainted with the instrument and its superiority to every other inhaling apparatus, and I trust you will therefore give me an opportunity to say a few words, in order to bring the subject to their notice. It is perhaps needless to dwell upon the advantages to be derived by applying medicaments immediately to a diseased part instead of indirectly through the circulation. There are, of course, many organs which can never be reached directly, because not accessible through any natural duct; but so soon as any means is found of making a safe entrance into an organ or into any shut cavity, we are led almost instinctively to attempt the direct application of remedies. This disposition to search for the means of treating diseased conditions immediately is so universal, that we may expect, in the future, such success as would now be thought impossible.

How unsatisfactory the mediate method of treatment is in pathological changes in the air tubes, every physician knows, and from the time of Hippocrates, who himself describes an apparatus for inhalation, to the present time, a vast amount of inventive talent has been directed to the discovery of the best means for the introduction of medicinal agents into the air passages, and the apparatus which have been contrived for the purpose mentioned can be numbered by hundreds. Up to a comparatively recent period, all the apparatus invented, with the exception of those for the inhalation of pulverized*

* I use the word pulverized in connection with solid substances, and atomized in connection with fluids.

medicinal substances, so much employed by Trousseau, were designed for the inhalation of the vapor of solutions or tinctures, and notwithstanding much temporary benefit has undoubtedly been derived from this method, radical cures of chronic affections of the bronchial mucous membrane have been exceedingly rare.

It was about the year 1849 that an attempt was made at some of the Continental spas to atomize the mineral waters by throwing a jet of the liquid against the wall of a room. Subsequently, Sales Giron invented a portable instrument for atomizing fluids, and it was extensively used at the thermal establishment at Pierrefonds. The apparatus is figured in the *Medical Times and Gazette* of June 28th, 1862. It consisted of a glass vessel, to which was attached an air pump, and from the bottom of which a tube was led through the top of the vessel, ending in a minute point. The vessel being partly filled with the fluid, air was forced in by means of the pump, and a stop-cock attached to the tube being then opened, a fine stream of water was forced with great violence against a metal disc, and was broken into minute spray, which was then inhaled by the patient. When this instrument was first introduced to the medical faculty of Paris it attracted great attention, and a committee, appointed by the Academy of Medicine, made an elaborate report upon its merits, substantiating the claims of the inventor, and proving, by experiment, that the vapor reached not only the finest ramifications of the bronchi, but also the air cells. Since then a large number of instruments have been contrived, all looking to the same end, but all, with one or two exceptions, acting on the same principle—namely, driving a fine jet against a metal disc.* Of these exceptions, one was the invention of Dr. Bergson. Dr. B. placed two tubes of different calibres at right angles to each other, the smaller tube covering with its end about two thirds of the diameter of the larger tube. The end of the smaller tube being put into any fluid, and a current of air being forced through the larger, a vacuum is caused in the former; the fluid then ascends in the tube, and on reaching the top is blown into a fine mist by the current of air. Bergson connected with the smaller tube two rubber balls, by aid of one of which the air was forced into the second, which served as an elastic reservoir, and kept up a continuous stream of air through the tube, and consequently an uninterrupted jet of spray. Taking advantage of the ingenious arrangement of tubes mentioned, Siegle, of Strasbourg, invented his apparatus, which consists in substituting for the current of air a current of steam. The larger of the two tubes is introduced into a small

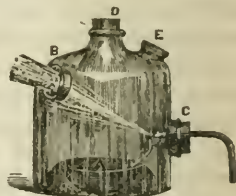
* There is still another instrument, made by Luer, by which a spray is made by streams of water being forced, by means of a screw piston, through two fine openings in a button on the extremity of a flexible metal tube. The two streams impinge against one another, and are broken into a fine spray; and yet another contrivance, in which a fine stream of liquid driven from a partially filled caoutchouc bag is broken into spray by a current of air driven from the same bag at the same moment through the orifice of a tube, into which the first tube is set. The central tube, of course, descends into the bottom of the bag and of the liquid. The circumferential tube just enters the bag.

kettle, with an alcohol lamp beneath, and the smaller tube dips into a little cup, which contains the medicament to be employed. The advantage of Siegle's apparatus over the hand instrument is this, that the patient is spared a great amount of manual labor. The latter is exceedingly convenient when inhalation is to be kept up for a short time, say a minute or two, but the hands of the operator become fatigued when the sitting is continued for a longer period than that. The steam apparatus may, of course, be used an indefinite length of time. In this respect, namely, in not employing manual labor, Siegle's instrument surpasses all other atomizers hitherto invented. Soon after receiving my Bergson-Siegle instrument, made by Galante of Paris, I had such favorable success with it in laryngeal and bronchial affections, that I determined to use my endeavors to have similar instruments made for the benefit of general practitioners. For this purpose I gave Messrs. Codman & Shurtleff a drawing of an apparatus simpler in some respects than Siegle's, at the same time suggesting the importance of attaching a safety valve to the boiler. After a considerable time (necessarily demanded in getting up a new apparatus) Messrs. C. & S. have at length produced a very beautiful and compact little instrument, which they invite physicians to inspect at their store. The pressure of steam necessary to atomize the fluid is exceedingly small, probably not more than that of two atmospheres, and greater or less amount of steam may be had by raising or lowering the alcohol flame and by the manipulation of the safety valve. The length of the stream of vapor is from six to eight inches; the length of the stream of spray from two to four feet. Six inches of steam and eighteen inches of spray is a good average. I have found by experiment that it requires about three drachms of water in the form of steam to atomize an ounce of water, the time occupied being from eighteen to twenty minutes. The spray is not sensibly warmed by the steam, and I have not found that warming the fluid to be atomized has made any very great difference in the temperature of the spray. In inhaling, the patient sits about a foot from the apparatus and breathes easily or forcibly, according as it is desired that the medicament shall reach the larynx and trachea or the finer ramifications of the bronchial tubes. It is not necessary that the mouth should be so near the apparatus that the spray is driven into it by force. The spray is so fine that it floats about like mist, and may be inhaled at any part of the visible column. In order to protect the face from the superfluous spray, numerous screens have been suggested. Messrs. C. and S. have several patterns. I think, however, I have hit upon a contrivance which seems to me to have many advantages over the screens heretofore suggested. 1st. With my contrivance that portion of the spray which is not taken up by the patient is condensed within a reservoir. There is consequently no wetting of the stand on which the apparatus rests, or of the surround-

ings. 2d. The Bergson tubes, which, being of glass, are liable to many accidents, are completely protected from injury. 3d. The little "spitting" of hot water caused by the steam condensing in the tube and being forced out violently by the steam, in my contrivance does not alarm or annoy the patient, as the stream of spray is not directed immediately towards the patient's mouth. 4th. The temperature of the spray inhaled is raised by the warming of the vessel by the steam.

The contrivance referred to is a glass jar, through the side of which, near the bottom, is introduced a cork, which supports the Bergson tubes. The spray is therefore made in the jar. Such as is not inhaled is condensed on the sides.

Annexed is a representation of the jar, which is about five and a half inches in diameter and five inches high to the shoulder. At the side is an opening (c), through which the tubes are introduced into the interior. To the end of the tube, which juts beyond the cork exteriorly, is attached a bit of rubber tubing, and this again is attached to



the glass tubing which enters the steam apparatus. In the centre of the bottom of the jar (which has a convexity inwards) is blown a receptacle (A) large enough to contain an ounce or two of liquid. Thus the condensed spray and the steam within the jar do not dilute the original medicament in the little cup, but run down to the space outside this latter. At the top of the jar are three openings. One (D) is placed just over the little receptacle. This is used for the introduction of the medicament, and should be corked up during the inhalation, on account of its proximity to the face of the patient. The second opening (E) is over the points of the Bergson tubes, and the third (B), the mouth-piece, juts out from the shoulder of the jar, at a convenient angle for the approach of the mouth. This mouth-piece is not exactly opposite to the tubes, but a little way round, so that the spray does not shoot directly through the opening. By this arrangement the patient is protected from any little spurt of hot water. The horizontal tube must be turned up slightly at the end, so as to throw the spray upwards. After inhalation, the jar may be disengaged from the apparatus, the medicament poured out through the mouth-piece, and the jar washed by shaking with water. The perpendicular tube may be cleaned by leaving a little water in the jar and attaching it for a moment to the apparatus. Should the perpendicular tube become obstructed, it may be picked at by a bristle brush thrust through the opening at the top. If a wire is used, it must be a soft silver wire. *A needle or pin must on no account be used.* Should it be necessary, the tubes may be removed by taking out the cork at the side. To prevent all chance of breakage on removal, I have made the horizontal tubes in two parts, connected by

rubber tubing, so that a kind of hinge is made well up to the connecting rod. The cork may be made of such a diameter, say an inch and a quarter, and the angle of the tubes placed so well up to the surface of it that there is the very smallest possible chance of breakage, even when the cork is frequently removed.

The jar intended to be used as a hand instrument is smaller than the one already described—namely, about three inches and a half in diameter and four inches in height. There is no cup blown in the bottom, but in order to gain a comparatively great depth of liquid with a small amount of medicament, the bottom is blown with a considerable convexity inwards. By this means the liquid is collected at the circumference of the jar. Attached to the Bergson tube is a rubber ball, by pressing which the spray is produced inside the jar. The jet is thrown, not directly towards the opening intended for the mouth of the patient, but just below it. By this means the coarser particles of the spray are thrown against the side of the jar, to be returned to the bottom; the finer particles whirl about in the jar and are taken up by the patient at each inspiration. Thus all the advantages of a continuous stream of spray are obtained. It will at once be seen that an ounce of medicament in this contrivance will go as far as many ounces in any other instrument. There is absolutely no waste. After the sitting, the medicament should be poured through the mouth-piece of the jar into a bottle and set aside for future use, and the jar be washed as before described. For the various reasons referred to, this seems to me to be the cheapest atomizer yet made, while it is as efficient as any and more simple.*

The method of inhalation I have been describing is applicable to all the various pathological changes which affect the respiratory tract, from the uvula, the pharynx with its arches, the larynx and trachea, and the bronchi and its ramifications, and to the acute as well as to the chronic affections. The success attending the treatment of chronic bronchitis and the asthmatic condition consequent upon it has been very marked, such cases yielding readily to this form of inhalation when all other means had failed. Cases are extremely frequent of this affection, and they are often among the most obstinate diseases that physicians have to do with; many cases going on in spite of all efforts to arrest the disease, to loss of the contractile power of the lung, and hopeless emphysema. Such a condition is of course past cure, but I have no doubt that a partial loss of power, a temporary emphysematous condition—if I may so term it—may be restored by arresting the abnormal secretion and altering the condition of the lining membrane of the respiratory tract. I must not forget to refer to this method of inhalation as a palliative in phthisis, by diminishing the amount of bronchial secretion.

In order to demonstrate the utility of the spray-inhalation, I will

* Messrs. Codman & Shurtleff will furnish this instrument also.

mention two cases of chronic bronchitis in which the success was quite striking.

CASE I.—W. F., aged 46 years, but looking ten years older, came to me Nov. 15th. Four years before he had had an attack of bronchitis, which lasted two months, and obliged him to desist from his business. In every autumn since, about October, he has had severe bronchitis, with copious expectoration, constant difficulty of breathing and asthma. The appetite has been poor and the strength greatly reduced; he has been unable to lie down at night, and has had to sleep in his chair the greater part of the time. This state of things has lasted till the latter part of May in each year. During the summer he has been comfortable, though the severity of the disease has impaired his health materially. He has been under treatment by myself and others every winter, but with only slight and temporary relief. This year the attack came on towards the latter part of October, apparently with a cold. As in former years, he sleeps in a chair, if he can say that he sleeps at all, the night being very much broken up by the difficulty of breathing; goes about with much inconvenience on account of shortness of breath; "wheezes" all the time, and at night the asthma is very distressing; can eat nothing with any relish. On examination of chest, mixed mucous and sonorous râles are heard over both sides, front and back. The expiration is prolonged, as evidenced by the continuance of the râles, the respiratory murmur being very feeble, or scarcely heard at all over the noise of the râles. There is no other marked symptom, either on auscultation or percussion. The diagnosis was, of course, severe bronchitis, with partial loss of power of the contractile tissue of the lungs. Inhalation of an atomized solution of tannin, about three grains to the ounce, was commenced Nov. 15th. The amount of fluid used was about an ounce, that quantity requiring a sitting of about twenty minutes. Of course the whole ounce was not inhaled, but only a very small proportion of it. The night following the first inhalation, the patient went regularly to bed and slept six hours.

Nov. 20th.—Has inhaled, as on the first day, once daily, and has slept seven hours at night comfortably, without waking; coughs a good deal less; breathing much improved; has not had any "smothered" turn at night; expectoration diminished and less tough; appetite better—partook last night of animal food, which he has not been able to touch for some time; shortness of breath much less, and walks with greater ease.

23d.—Has omitted inhalation, necessarily, for two days; still greatly improved; "wheezing" all gone; slept the whole of last night; expresses his relief in the most extravagant terms. On auscultation, only an occasional dry râle is heard, and the respiratory murmur is more normal.

On Nov. 29th, the patient having had twelve inhalations, and being so much improved, was told to go about his ordinary business, and

stay away as long as he remained comfortable. On Dec. 15th he appeared, to say that he was entirely well in every respect.

Feb. 8th.—Have seen patient to-day; went to his house in order to complete the record of the case. Found him looking very well; says he has been perfectly well till about a week ago, when, being exposed by sitting in a cold, damp room, he took cold, and has had some expectoration, with a slight disturbance of sleep, but not enough to induce him to ask for inhalation. On examination of chest, the rhythm of respiration is normal. On forced inspiration, an occasional slight mucous râle is heard.

CASE II.—Miss A. M. has for a year past been troubled with severe bronchitis, depressing her both physically and mentally. There is occasional shortness of breath and an annoying cough, with expectoration of mucus. The nights are much disturbed by coughing. On examination of chest, mixed moist and dry râles are abundant over both sides. In order to compare the value of the inhalation with the ordinary mode of treatment, I gave tinct. ferri muriat., gtt. xv., three times a day, and Dover's powder at night, and if necessary in the day time. I also tried balsamic preparations. This was kept up a month, with only slight relief. The sleep was a little better, but the symptoms were in general much the same. I then commenced the inhalation of the spray of a solution of tannin, three grains to the ounce. The relief was immediate and decided. The nights commenced at once to be free from cough, and she expressed herself as improved in every respect. She is now, two weeks after commencing inhalation, exposing herself to changes of weather which before would have induced severe paroxysms of coughing. On examination of chest, three weeks after commencing treatment, only an occasional moist râle is heard.

The therapeutic agents which may be employed in the above method of inhalation are the different astringent and alterative substances in solution, or as tinctures, of which I may mention the following:—

Nitrate of Silver, from three to ten grains to the ounce of water, according to the urgency of the case. The duration of the sitting should be shortened in proportion to the increase in the strength of the solution.

Tannin, from three to eight grains to the ounce.

Alum, from four to fifteen grains to the ounce.

Perchloride of Iron, one to ten drops to the ounce, has been used with marked success in obstinate hæmoptysis.

Acetate of Lead, from one to eight grains.

Sulphate of Zinc, from half a grain to five grains.

Common Salt, from five to twenty grains to the ounce.

Tincture of Opium, one to ten drops.

Corrosive Sublimate, one or two grains to the ounce, from half a

grain to two grains to the ounce, watching the effect of the inhalation carefully.

The Salts of Iodine, Bromine, Chlorine, may be used.

Fowler's Solution has been used in the dose of from half a drop to five drops to the ounce.

Carbolic Acid, in a very diluted form, say half a drachm to from sixteen to thirty ounces of water, is recommended for excessive and fetid bronchial secretion.

The Liquor Iodini Comp., diluted with from four to ten parts of water, is useful.

A properly diluted solution of *Permanganate of Potash* would no doubt be serviceable as a deodorizer in gangrene of the lung.

Boston, March 1, 1866.

HENRY K. OLIVER, M.D.

CASES IN COUNTRY PRACTICE.—No. XI.

By JOHN ELLIS BLAKE, M.D., of Middletown, Conn.

[Communicated for the Boston Medical and Surgical Journal.]

PELVIC ABSCESS.

I ATTENDED Mrs. S. in her confinement, February, 1861. There was nothing peculiar about the labor, nothing abnormal, either in its duration or character, that I remember, save a sharp cramp in the left groin, running down the leg of that side, caused by the pressure of the head of the child, very severe for a time, but soon over, and no worse than I have often seen when nothing came of it, and to which I then gave little thought. It would appear, however, that the soft parts were really much injured by this severe pressure, short as it was, for in less than ten days there were symptoms of trouble, and the beginning of an illness from which the patient did not recover for more than four months. First, there was constitutional disturbance, febrile action, pain and tenderness in the left groin, soreness in the course of the femoral vein, and of the left thigh, which was much swollen. I feared phlegmasia dolens, but this swelling and soreness did not last long, at least to any great degree, and it was hoped the trouble would pass by. It was not, however, so to be, and before many days interval she was taken with chills, very severe pain in the back and over the region of the bladder, accompanied by great distress in micturition. She complained so much of a "bearing down" upon the bladder that an examination was made to ascertain the position of the uterus, with the idea that it might be somewhat prolapsed, or perhaps retroverted. So far from there having been any descent of that organ, however, I found it impossible on the first trial to reach the os uteri at all, and could also determine that there was no retroversion. On a succeeding examination, made in consultation with Dr. E. B. Nye, of Middletown (who during the progress of the case frequently saw it with me), the os was found very far up,

almost out of reach, and with some lateral deviation. So far as we could determine, the whole organ was pressed upward, backward, and a little to one side by some means which could not at first be accurately defined. Of course it was impossible, from the tenderness over the bladder and uterine region, to make as protracted and thorough examinations as might otherwise have been done. It was deemed that there was not a sufficient probability that the treatment of the case would be enough facilitated, by the information gained by further manipulations, to compensate for the certain and perhaps protracted suffering and exhaustion likely to follow. It was evident, from the general symptoms, that pus was forming somewhere, and while waiting for the opportunity to make a more precise diagnosis, there seemed nothing better to do than to make the patient as comfortable as possible, supporting the strength and diminishing nervous irritability and pain by appropriate remedies. It was not necessary to wait long. In a short time the probable presence of pus could be made out through the vaginal wall on the left side. It was a case of pelvic abscess; but although there can be no doubt that it began as the result of over pressure of the child's head, and was one and the same process with the inflammation in the left groin, which occurred so early, yet I do not now remember that at any period of the case a direct connection was ever clearly made out between them. I have always thought that the mere superficial inflammation never reached the suppurative point, the large abscess with which we had to deal having its own walls and being influenced by the pelvic fascia in its course to the point of exit. This was into the rectum from below. A large collection formed, bulging up into that organ and breaking through. The first discharge was large—more than a pint—and pus continued to pour from the rectum for weeks in such large quantities that I feared, in spite of all that could be done, the patient would sink from it. Not only was she exhausted by this constant drain upon her system, but the irritability of the bladder and urethra returned in full force. The agony she endured with each attempt to pass water was distressing to witness. Her stomach became very irritable, and by rendering the administration not only of proper nourishment, but of the remedies for her distress, very difficult, complicated the case. In spite of the greatest constant care on the part of her attendants, her bed and clothing would become soiled with discharges both of urine and pus, most offensive to a delicate and sensitive person; and when at the worst, I do not doubt, she would have welcomed death as a relief from her sufferings. Still she did finally get well. There was no sudden change; no day could be named when she began to mend, but she slowly, and by almost imperceptible steps, crept up the hill to health, although it was many months before she could be said to have recovered. She is now well, and has since been confined, without any untoward symptoms.

Bibliographical Notices.

The Physiology of Man ; designed to represent the Existing State of Physiological Science as applied to the Functions of the Human Body. By AUSTIN FLINT, Jr., M.D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, New York, and in the Long Island College Hospital, &c. Introduction ; The Blood ; Circulation ; Respiration. Pp. 502. New York : D. Appleton & Co. 1866.

THE Introduction to this work, which is only one of three other parts to be issued annually, is devoted to the physiological chemistry of the body.

As the author says at the commencement that he does not pretend to treat fully of this subject, we must overlook many shortcomings ; but even after making all possible allowance, there is little to commend in the introduction. The ideas contained in it are in great part those given in the writings of Robin and Verdeil, and many of them have since been modified or disproved. Indeed, the author does not appear to have kept pace with the advancements made in this department of physiological science.

Following the introduction, the author treats in succession of Blood, Circulation, and Respiration.

We shall merely glance at a few points, which strike us as of especial interest, and leave the rest to the judgment of the reader.

Chapters I., II. and III. treat of the blood. Of the corpuscles of this fluid, the author says : " They are true organized structures, and like other structures are constantly undergoing decay, and are capable of self-regeneration." This view of the blood globules is, we think, the correct one, although the opposite has been advanced by several able writers. We cannot, however, agree with the opinion given on the 116th page, that these globules " are perfectly homogeneous and are not provided with an investing membrane," for we consider the weight of evidence to be very much against such a conclusion.

In the second chapter several pages are devoted to the quantitative analysis of the blood. The usual modes of analysis are objected to on the ground that they give only the amount of *dry residue* of the organic principles, and not the amount of these principles in their natural *moist condition*. This objection is a good one, and one that has long been felt, but the method proposed by the author as a substitute for the usual estimation by dry residue of the blood corpuscles, is itself by no means unobjectionable.

The method proposed by Figuier is the one recommended by Dr. Flint. This method consists essentially in washing defibrinated blood upon a filter with sulphate of soda. This salt renders the corpuscles incapable of passing through the filter, while the serum readily transudes. Unfortunately, however, *all* the corpuscles are not retained upon the filter ; many of them pass through, and even when the filtrate appears perfectly colorless to the eye, a microscopic examination reveals plenty of globules. Moreover, *all* the serum is not separated, even by the most thorough washing. Other objections, which we have not space to mention, exist, so that the method cannot be

considered as a reliable one. The plan adopted by Schmidt, for the estimation of the globules in a moist state, although by no means perfect, is preferable to that of Figuier.

In Chapter III. the cause of the coagulation of the blood is discussed at some length, and, as we think, with great clearness and impartiality.

Dr. Richardson's theory, and the principal experiments upon which it is based, are carefully examined and a proper value set upon them. The conclusion at which Dr. Flint arrives will be best given in his own words, and we are inclined to believe that, considering the subject in its present state of development, few will dispute the soundness of his views.

"The idea of simple contact with living tissues preventing coagulation, hardly merits discussion. It is well known that coagulation frequently takes place during life, almost always following arrest of the circulation. After division of the vessels the blood in contact with parts performs its conservative function in the arrest of hæmorrhage. There is certainly something very curious in the effect of the contact of foreign substances, and the experiments on this point are very striking. Why is it that a coagulum forms upon a fine thread or a needle passed through a vessel; or on the wire with which the blood in Mr. Lister's apparatus was stirred, though there was no exposure to the air? And why did the blood, which was only gently stirred for a few seconds with a smooth ivory rod, coagulate so much more rapidly than that which was undisturbed?"

"These are questions which we must acknowledge our inability to answer. The phenomena cannot be satisfactorily explained by the supposition that ammonia is evolved; on the other hand, this is not sufficient reason for rejecting the fact experimentally demonstrated, that, out of the organism, ammonia, a substance capable of maintaining the fluidity of the fibrin, is given off from coagulating blood."

Chapters IV. to X. treat of the circulation, and this, we think, constitutes the most valuable part of the work.

In considering movements of the heart, the author bestows considerable attention upon the interesting and oft-disputed question, whether the organ elongates, or, on the contrary, shortens during the systole. The first of these two views has been ably advocated by several eminent writers, but we believe it to be erroneous, and consider that Dr. Flint is correct in asserting that the organ shortens during contraction. He says:—

"There is no doubt that the point of the heart is protruded during the ventricular systole; but the author was led by perusal of recent experiments of Chauveau and Faivre to recognize the fact that this protrusion is probably due to other causes than the elongation of the ventricles, and that *during the systole the ventricles are shortened.*"

He then goes on to describe the experiments by which he has satisfied himself of the truth of the views of the foreign observers just cited.

The idea that the organ elongates he shows to be owing to the fact that *the whole organ is thrown forward* during contraction, and that this *protrusion* has been mistaken for *elongation*. If the organ be pinned down *in situ* to a flat piece of wood, it is then evident that it

shortens at the moment of contraction, and the degree of shortening can be easily measured.

The fact that certain observers have noticed an elongation of the organ when removed from the body and held in the hand, is, he shows, probably due to the position in which it was held. He says: "If, for example, we take the heart of a turtle between the thumb and finger and hold it with the point upwards, the ventricle is so thin and flabby that it will become flattened during the intervals of contraction, and the point will be considerably elevated at each systole; but if we reverse the position and allow the point to hang down, it will be drawn up, and the ventricle will shorten with the systole."

In speaking of the valves of the heart, the author states that not only does the bicuspid valve play the part of a safety-valve by permitting regurgitation, which has long been known, but also that he has discovered that the pulmonic valves play a similar part.

We might mention a great many more facts of interest concerning the circulation, which are mentioned in the book before us, but as it would be impossible for us to notice all, and as a selection would not be easy, we will leave this portion of the work, merely remarking that we regard it as a most valuable addition to physiological literature.

The last four chapters treat of respiration. Of this part of the book we cannot speak so highly as we have done of that just reviewed. It is, upon the whole, much inferior. In the first place, we cannot feel the same interest in it as in the portion devoted to the circulation, for the reason that it is in great part a simple repetition of what we are already familiar with, and what has been repeated over and over again in treatises on physiology. The author has few new ideas or experiments that are of interest to offer, and consequently this portion of the book is not of any particular physiological value. Added to this, it is in several respects deficient. Thus, for example, in a work intended "to treat comprehensively of the physiology of man," we should look for a much fuller description of the minute anatomy of the lungs than that given, the space devoted to this part of the subject being but little greater than that found in many of the text books. As a consequence of this limitation, many important points are merely touched upon, or even passed over in silence.

In describing the mechanism of inspiration and expiration, the author fails to notice the important physical principles which are involved in the process, the only allusion to the subject being contained in a few words, in which he says: "Inspiration takes place as a consequence of enlargement of the thoracic cavity, and the entrance of a quantity of air through the respiratory passages corresponding to the increased capacity of the lungs." No special reference is made here or elsewhere to the laws of gaseous expansion and tension which play so prominent a part in respiration.

The explanation given of the diffusion of gases in the lungs is likewise unsatisfactory. It contains the same errors that exist in most treatises on physiology, in regard to the application of the laws of diffusion, as established by Graham, to the respiratory function.

We all know that the air contained in the air-cells and smaller bronchial tubes is not changed by the ordinary respiratory movements. It is only the air of the trachea and larger bronchial passages that is

thus renovated. But, inasmuch as the air of every ordinary expiration is found to contain carbonic acid, and to have lost oxygen, it is evident that, in some manner, the former gas finds its way outward from the air cells into the larger bronchial tubes and trachea, and the latter gas finds its way inward to the air cells.

It has generally been considered that these movements of the gases take place in accordance with the law of the diffusion of gases known as "Graham's law." Mr. Graham found that when two gases were allowed to communicate they diffuse into each other, and that their diffusibility was inversely proportionate to the square root of their densities. In these experiments the gases were both of the same temperature, and subjected to equal pressure. They were so placed that they had to diffuse contrary to their specific gravities, that is, the lighter gas was placed uppermost.

Graham's results have been applied to the explanation of the movement, of the gases in the lungs, and it has been thought that in accordance with his law the carbonic acid passes out and the oxygen passes in. Thus in the present work the author says: "The interchange between the fresh air in the upper portions of the respiratory apparatus and the air in the deeper parts of the lungs is constantly going in, in obedience to the well-known law of the diffusion of gases, aided by the active currents or impulses produced by the alternate movements of the chest;" and again, "In obedience to the law established by Graham, that the diffusibility of gases is inversely proportionate to the square root of their densities, the penetration of atmospheric air, which is the lighter gas, to the deep portions of the lungs would take place with greater rapidity than the ascent of the air charged with carbonic acid; so that 81 parts of carbonic acid should be replaced by 95 of oxygen. It is found, indeed, that the volume of carbonic acid exhaled is always less than the volume of oxygen absorbed."

To this latter statement it may be, however, at once objected, that in some animals it has been noticed that more carbonic acid was exhaled, than there was oxygen absorbed.

But besides this, other objections exist.

It is certain that the diffusion of gases in the lungs takes place with much greater rapidity than is observed out of the body. The idea has somehow arisen that the diffusion of gases is an instantaneous process, and that therefore carbonic acid passes rapidly into air. An extract from Dr. Flint's work will give a good idea of the opinion generally held upon this point.

"When two gases or mixtures of gases, of different densities, are brought in contact with each other, they diffuse or mingle with great rapidity, &c."

A few years since Dr. John W. Draper made a series of experiments to determine the *absolute* rapidity of diffusion of carbonic acid into atmospheric air. The results given by Graham are merely *relative*, and therefore throw no light upon this point.

Dr. Draper found that it required *more than a minute* for carbonic acid to diffuse through a tube $\frac{6}{10}$ of an inch in diameter and 4 inches long, filled with air.

We have made experiments of a similar nature to those of Dr. Draper, and are convinced of the accuracy of his statements.

Now an ordinary act of respiration occupies but a few seconds, and yet in that time carbonic acid passes through the long and narrow air passages. Moreover Vierordt has proved that it requires but 40 seconds for the air in all parts of the lungs and air-passages to contain the same percentage of carbonic acid. Now, if it takes more than a minute for carbonic acid to diffuse through a tube only four inches in length, how is it possible for this gas to pass by simple diffusion through the ramifications of the air tubes in less than half that time?

The movement of the columns of air in the acts of inspiration and expiration is not sufficient to account for the rapidity of the diffusion, for out of the body the same degree of movement will not produce a corresponding degree of diffusion.

There appears, then, to be some other forces in operation besides that of simple diffusion.

We do not mean to uphold the theories that the muscles or the cilia of the bronchial tubes exert an influence over the movement of the gases concerned in respiration, for we think the author right in rejecting these agencies; but we would remark that there are two important points that have, so far as we know, escaped the notice of every physiologist who has written upon this subject, viz.: first, that the laws of the *transpiration of gases* must be consulted as well as those of diffusion, for the size of the smaller air tubes necessarily involves the operation of these laws, which are utterly different from those of diffusion; and second, that, inasmuch as the interposition of moist membranes almost completely alters the ordinary phenomena of diffusion as regards carbonic acid and air, it is not unlikely that moist membranous tubes exercise an influence over the passage of these gases. By this, we do not mean to ascribe to the animal tissues any peculiar force, such as the absurd so-called "vital force," but merely to indicate that by virtue of their chemical or physical properties these tissues may influence the movement of gases which are in contact with them.

With these remarks we will close our review; and will only say, in conclusion, that we most cordially recommend Dr. Flint's work to all interested in physiological science, the part devoted to the circulation being alone sufficient to make the book one of great value.

A Treatise on the Principles and Practice of Medicine; designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital, etc. Pp. 867. Philadelphia: Henry C. Lee. 1866.

It is a rare event in literature to record the simultaneous appearance of medical treatises by father and son, especially noticeable when the works are as large and important in their aim as the two we briefly notice this week. The object of Professor Flint, senior, has been, as he states in his preface, to prepare "such a digest of the principles and practice of medicine as will be serviceable alike to the pupil in the prosecution of his studies of disease, and to the physician engaged in the practical duties of his profession." Such an undertaking was perhaps unnecessary, unless the author had facts or views to communicate not contained in other works of the same nature

within reach of the student. A careful examination of the book, however, does not remove this conviction, although we can heartily recommend it as another concise and clear digest of the present state of medical science and opinions concerning the general subjects of which it treats.

It is divided into two parts. Part first is devoted to general pathology, including chapters on the anatomical changes in solid parts of the body; morbid conditions of the blood; the causes of disease, or etiology; symptomatology; prophylaxis, and general therapeutics. Part second treats of diseases affecting the respiratory system, the circulatory system, the digestive system, the nervous system, the genito-urinary system, and fevers and other general diseases.

We wish we could speak in the same terms of the appearance of this book as of that of the son. It is printed in the old style of fine type and poor paper, and contrasts very unfavorably with recent medical works published by other houses.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 8, 1866.

CONTAGIOUSNESS OF CHOLERA—CITY PHYSICIAN'S COMMUNICATION TO THE CITY GOVERNMENT.

WE have at last received this interesting document, which was presented to the Board of Aldermen on the 29th of January last. It contains, in substance, a reversal of the opinion of the City Physician on this engrossing question, as expressed by him in October last, and addressed to the same body. This change of opinion is frankly acknowledged, and the evidence on which it is grounded—the very striking facts connected with the present epidemic in Europe, which at that time had not been presented to the medical profession as they have been since—is printed quite at length in the pamphlet before us. Much of this has already been given to our readers in the pages of this JOURNAL. In addition, we find copious extracts from Dr. Kennedy's *History of the Contagious Cholera*, a synopsis of Dr. Snow's theories concerning the disease, and other evidence, which have led the City Physician to express his unequivocal conviction that cholera is a communicable disease. Of course this leads to the consideration of the measures most likely to secure to this community exemption from the dreaded epidemic, and in this connection we have an account of some of the quarantine measures heretofore put in practice in Europe for a similar object. The pamphlet concludes with a communication from Dr. Damon, late Superintendent of the Boston Dispensary, in reply to one from Dr. Reed asking for the statistics of Dispensary patients with bowel complaints during the summer months, and how far they could be fairly charged to unfavorable local influences. In his reply Dr. Damon divides the city into seven distinct districts, and gives the proportion of cases in each. A map of the city is appended, on which are indicated the localities where patients affected with these complaints resided, and it is interesting to observe that they prevail-

ed most extensively in precisely the situations where *a priori* they might have been looked for. Most of this territory is "made land," and Dr. Damon attributes most of the sickness in such places to "emanations from drains and the soil, over-crowded dwellings and filth." In view of all these facts, the City Physician urges with renewed emphasis the great importance of the most rigid enforcement of the Sanitary Code, with the confident hope that much may be done in this way to avert the pestilence or disarm it of its terrors should it appear among us. The pamphlet is a very valuable City Document, and will be the means of conveying much needed information to quarters it would not otherwise be likely to reach.

OF the new medical journals, the anticipated publication of which we have from time to time announced during the past few months, four have reached us; and thinking our readers may find a fuller introduction more profitable than the formal announcement of their appearance, we propose to give each a brief notice.

The first that comes to our hand is the *Richmond Medical Journal*, of which the numbers for January and February have been received. This is a monthly octavo of eighty pages, edited by E. S. Gaillard, M.D., and W. S. McChesney, M.D. Without any pretentious array of names of collaborators, the Editors promise to devote themselves to the highest interests of medical science, in a general way announcing that they have the promise of the support of a number of the best writers in the country. The two numbers published come fully up to the standard proposed by the Editors, and contain several articles of marked merit, among which are papers on the Relations of the Periosteum to Osteogenesis, a New Method of treating Ununited Fractures, by the senior Editor, and a very elaborate article on Cholera by Dr. Houston, of Richmond. The Editors have adopted the policy of paying for original communications, by which they hope to secure contributions of more intrinsic value than if they depended upon the voluntary aid of their friends. We should think this a somewhat hazardous experiment in starting a new periodical, especially when we consider the financial condition of the Southern country at the present time. The Editors also announce that "nothing of a personal, political or controversial character will be published in its pages." They likewise promise valuable contributions to medicine and surgery growing out of the experiences of the late war. The second number is a marked improvement upon the first in every way, and the Journal bids fair to take a place in the very front rank of American medical periodicals.

The *Savannah Medical Journal* for January is the re-appearance of the journal formerly published by the Savannah Medical College. Suspended for the past four years, it is now published under the auspices of the Georgia Medical Society. Prosperous as it was under the old Editors, its friends may confidently look for increased success under the present more enlarged plan of administration. The present Editors are Dr. Juriah Harris, Professor of Physiology in Savannah Medical College, Dr. J. B. Read, Professor of Materia Medica in the same institution, and Dr. J. G. Thomas. Among other interesting papers in the January number is one on a remarkable case of Elephant-

tiasis of the Scrotum and Genital Organs, illustrated by a lithographic plate. Numerous errors of the press disfigure the number before us, but we cannot help regarding it, as a whole, as highly creditable to the energy and professional zeal of the Editors. It is not hard to appreciate the difficulties under which any such enterprise as this in the region in which it is published must struggle at the present time, and we feel that its originators and promoters are worthy of all praise. We sincerely wish them success. The second number of the *Savannah Journal* has not yet reached us.

The Cincinnati Journal of Medicine. This is a monthly periodical of fifty pages, edited by Professors George C. Blackburn, Theophilus Parvin and Robert Bartholow. The numbers for January and February have been received, and they are full of valuable matter. They each contain important original articles by each of the Editors, and the foreign intelligence in their correspondence, translations and selections from foreign medical journals is of much value. Each number of the Journal will contain a *résumé* of the proceedings of the Cincinnati Academy of Medicine. And, by the way, we would say that this Academy has been engaged for a number of weeks in a systematic, careful discussion on Asiatic Cholera which does its members a great deal of credit. These discussions have been based on carefully prepared papers presented at the different meetings by a number of members, embodying the principal facts in its etiology, and giving the results of their individual experience. We observe that the doctrine of communicability, not to say the positive contagiousness of this disease, has strong advocates. The Academy have not, so far as we have learned, passed any *resolutions* on the subject, and the wisdom and professional dignity of their whole course is in striking contrast to the hasty action of a certain learned professional body to which some of our readers at least are not strangers, on this very important matter. The *Cincinnati Journal* is a credit to the Editors, to the city where it is published and to the medical profession of the country.

The last to enter the field is New York with its *Medical Record*, the first number of which, bearing date March 1st, is before us. This is a semi-monthly publication and promises to make good the gap too long left vacant by the demise of the New York Medical Times. It is printed in quarto form, contains twenty-four pages of reading matter in double columns to each number, and in its general physiognomy puts one in mind of the London weekly medical journals. It is under the editorial management of Dr. George F. Shrady, of New York, who promises communications from a number of eminent members of the profession in that city and elsewhere. When we state that the number before us contains original papers by Drs. Van Buren, Buck, Flint, and Post, of New York, and Dr. Williams, of Cincinnati, and a full report of a lecture by Dr. Gaillard Thomas, we can hardly say more to recommend it to our readers. Other features of special interest are reports of cases in New York, Brooklyn City, and Bellevue hospitals, descriptions of improved surgical instruments with illustrations, and the other various matters which are usually comprised in journals of its class. The first number certainly gives good promise for the future; and we cannot doubt that the metropolis of the country is at last to have a Journal which shall be a fair representative and exponent of the daily practice and scientific progress of the medical profession within its confines. It is to be regretted that at present

it will appear but twice each month. Surely in New York there must be material enough to fill such a Journal every week. The *Medical Record* is well printed.

Monument to Commemorate the Discovery of the Anæsthetic Properties of Sulphuric Ether.—A wealthy citizen of Boston has placed a liberal sum of money at the disposal Messrs. Ware and Van Brunt, architects, to commemorate the great medical discovery of modern times. It is intended as an expression of thanksgiving, as it were, for the great alleviation which it has brought to human suffering, and the monument which these gentlemen have designed is intended to convey this in a poetic form. Its base is square in plan and set in the centre of a pool twenty-three feet square. On the four faces of the base are niches containing sculptured foliage and heads, the latter being fountains by which the pool is supplied with water. This base diminishes gradually by successive courses of moulding to a die, which is the central and most important feature. Each face of this die contains an inscription surmounted by an alto relievo in marble, and is protected by an overhanging pointed arch supported by stunted shafts of red polished Gloucester granite; above these overhanging hoods the mass of the monument diminishes by a series of mouldings and prismatic surfaces till a proper base is reached, whence arises a grouped shaft six feet high, of red polished granite, supporting as a finial a group of two figures of heroic size, portraying the idea of the relief of suffering. In order to express this in the plainest language, the story of the Good Samaritan has been selected as most familiar and perhaps most typical of the idea. The structure is about thirty feet high, and, with the exceptions above indicated, is to be of white Concord granite. The capitals are highly sculptured, and the whole monument is to be executed with all the care and delicacy of which the material is capable. The four alto relievos in marble and the granite group at the top are to be executed by Mr. J. Q. A. Ward, Sculptor, of New York; and there can be no doubt from the well-known genius of the sculptor, that his part of the work will be in keeping with the general sentiment and beauty of the design and the enlightened liberality which gave origin to it. The monument is to stand in the Public Garden, facing Marlborough Street.

Commencement at Harvard Medical School.—The graduating exercises of the Harvard Medical School took place at the College in Grove street, on Wednesday, the 7th inst. An unusually large class of graduates received their diplomas. The theses selected to be read by their authors did them much credit, and instances might be referred to showing original research and independent thought on the part of the writers, quite above what is common in such compositions. The address to the graduating class by the senior member of the Faculty, Prof. Storer, was listened to with special interest. Claiming in virtue of his position an almost paternal relation, he availed himself of the opportunity to lay before them in a friendly and most eloquent manner a picture of the difficulties and struggles which inevitably lie in the path of every devoted and conscientious member of the medical profession, at the same time that he enforced the duties growing out of them, and encouraged them by his wise counsels and emphatic assurances to feel confident of ultimate success in an honorable career.

THE following gentlemen have been appointed a committee to aid the Medical Faculty of Harvard University in carrying out their design of publishing a complete catalogue of the past students of the Medical School, as stated in the notice in our advertising columns.

Henry I. Bowditch, *in behalf of Faculty.* Anson P. Hooker, *Asst. Surg.-Gen. of Mass.*

Committee from the present Medical Class.

J. F. A. Adams, U. S. Navy.	M. B. Campbell, Vt., U. S. A.
H. P. Bowditch, Mass. Vol. Cav.	E. H. Pettingill, Vt. 16th Vol. Inf.
L. F. C. Garvin, " " Inf.	R. D. Barber, New York 85th N. Y. Vol.
C. K. Packard, Maine Vol. Inf.	E. F. Spaulding, Wisconsin 7th Vol. Inf.
R. P. Sawyer, Maine, U. S. N.	M. T. Hobart, Canada East and W., U.S.A.
M. L. Gerould, New Hampshire, U. S. N.	Neil Sutherland, Nova Scotia, Mass. V. I.
E. J. Morgan, " " Vol. Inf.	R. Boyd, New Brunswick.
W. Butler, U. S. N.	J. A. McDonald, Prince Edward's Island.
Henry L. Hammond, Conn. Vol.	C. R. J. Kellam, Arkansas, U. S. A.
I. L. Clark, Rhode Island Vol. Inf.	

Massachusetts Medical College.—The following gentlemen received their degrees from Harvard University on the 7th inst. :—

<i>Name and Residence.</i>	<i>Thesis.</i>
Adams, James Foster Alleyne, <i>Boston,</i>	Infantile Paralysis.
Ahearne, Cornelius Augustus, <i>Boston,</i>	Inflammation.
Allen, George Otis, <i>E. Jaffrey, N. H.</i>	Miasmatic Fevers.
Appell, Jacob Franklin, <i>Needham,</i>	Tuberculosis.
Atherton, Alfred Bennison, <i>Frederickton, N.B.</i>	Fractures.
Barber, Rio Delos, <i>Little Genesee, N. Y.</i>	Impure Drinking Water.
Birch, James Gulick, <i>Newburgh, N. Y.</i>	Typhoid Fever.
Braman, Chandler Balch, <i>A.B., Brighton,</i>	Nicotine.
Breck, Theodore Frelinghuysen, <i>Springfield,</i>	Typhoid Fever.
Bunting, Joseph Lordly, <i>St. John, N. B.</i>	Digestion.
Butler, Winthrop, <i>Tisbury,</i>	Scurvy.
Calder, James Squair, <i>Pictou, N.S.</i>	Puerperal Fever.
Campbell, Merritt Bates, <i>Rutland, Vt.</i>	Erysipelas.
Chamberlain, Nathan Savery, <i>E. Stoughton,</i>	Sulphuric Ether.
Chase, Willard Dunlap, <i>Claremont, N. H.</i>	Pneumonia.
Coleman, Cornelius Francis, <i>Greenfield,</i>	Cinchona.
Cushing, Stephen, <i>Boston,</i>	Intermittent Fever.
Damon, Orison Benjamin, <i>Rutland, Ill.</i>	Intermittent Fever.
De Wolf, James Edward, <i>Danvers,</i>	Collateral Essentials.
Dryer, Robert Spencer, <i>Utica, N. Y.</i>	Scurvy.
Eddy, George Stetson, <i>Fall River,</i>	Diagnosis and Treatment.
Fixott, Henry James, <i>Arichat, C. B.</i>	Human Teeth.
Francois, Edward Albert Lewis, <i>Charlestown,</i>	Rheumatism.
Franks, Louis Edward, <i>Needham,</i>	Obstetrics.
Fullerton, Thomas Renton, <i>Pictou, N. S.</i>	Climate.
Gardner, Clarence Tripp, <i>Pawtucket, R. I.</i>	Intermittent Fever.
Garland, Albert Stone, <i>A.B., Gloucester,</i>	Diphtheria.
Gerould, Martin Luther, <i>Stoddard, N. H.</i>	Malaria.
Green, John Orme, <i>A.B., Lowell,</i>	Amputations.
Hall, Thomas, Jr., <i>Boston,</i>	Hysteria.
Harris, Edward Mowry, <i>E. Putnam, Ct.</i>	Variola.
Harvey, Edwin Bayard, <i>A.M., Boston,</i>	Mind a Remedial Agent.
Heath, Sylvanus, <i>Franklin, N. H.</i>	Delirium Tremens.
Hobart, Matthew Thornton, <i>A.B., Coburg, C. W.</i>	Pneumonia.
Huse, Ralph Cross, Jr., <i>Newburyport,</i>	{ Chronic Inflammation of the Uterus.
Ingalls, Richard Mayberry, <i>Boston,</i>	Vesico-Vaginal Fistula.
Jamison, George Alexander, <i>Tangier, N. S.</i>	Erysipelas.
Johnson, Otis Henry, <i>A.B., Haverhill,</i>	Scurvy.
Lynam, John Patterson, <i>Chelsea,</i>	Scarlatina.
McDonald, James Athanasius, <i>Charlottetown, P. E. I.</i>	Epilepsy.
McKeagney, Robert William, <i>Sidney, C. B.</i>	Inflammation.
Mercer, William Marcelline, <i>Lawrence,</i>	Cholera.
Milliken, Charles James, <i>Cherryfield, Me.</i>	Variola.

*Name and Residence.*Morgan, Edwin Jeremiah, *Plymouth, N. H.*

Munroe, George.

Munroe, William Francis, *Bradford,*Munde, Paul Fortunatus, *Northampton,*Munn, Curtis Emerson, *Westfield,*Ogden, William Martin, *Boston,*Oleson, Charles Wilmot, *Portland, Me.*Osgood, George Cowles, *Charlestown,*Packard, Charles Kittredge, *Portland, Me.*

Parke, John Gray,

Payne, Frederick William, *Bath, Me.*Parker, Scollay, *Boston,*Perkins, Roger Elliott, *Concord, N. H.*Richards, William Hughes, *Chatham,*Rice, Charles Henry, *Ashby,*Robinson, Charles Blake, *Newport, Me.*Shattuck, Henry Perkins, *Buffalo, N. Y.*Spaulding, Ebenezer Farrington, *Janesville, Wis.*Stanton, Nathaniel Greene, *Providence, R. I.*Stuart, George Albert, *Boston,*Sturtevant, Edward Lewis, A.B., *Boston,*Talbot, Charles Carroll, *Newburyport,*Tracy, William Clinton, *Cambridge,*Walker, Augustus Chapman, *Roxbury,*Wilder, Burt Greene, B.S., *Boston,*Williams, James Long, *Boston,*Wilmarth, Jerome, *Milford,**Thesis.*

Intermittent Fever.

Fracture of the Thigh.

Rheumatic Diathesis.

Medulla Oblongata.

Phthisis.

Hepatic Cell Life.

Hospital Gangrene.

Spinal Column.

Typhoid Fever.

Uriferous Tubes.

Typhoid Fever.

Yellow Fever.

Ingesta.

Gout.

Hæmoptysis.

Croup.

Chronic Diarrhoea.

{ Tuberculosis of Hip
Joint.

Opium.

Physical Culture of Children.

Typhoid Fever.

Acute Gastritis.

Meningitis.

Diarrhoea.

On the Human Hand.

Medical Science.

Lobelia Inflata.

GEORGE C. SHATTUCK, M.D.,

Dean of the Medical Faculty.

Wednesday, March 7, 1866.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 3d, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	37	32	69
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.1	40.7	81.8
Average corrected to increased population	00	00	89.10
Death of persons above 90	-	0	0

COMMUNICATIONS RECEIVED.—Resolutions relating to the death of Dr. Abraham Gould, of Lynn.—Case of Opium Poisoning.

PAMPHLETS RECEIVED.—Second Annual Report of the Board of State Charities; to which are added the Reports of the Secretary and the General Agent of the Board.—Memorial of Dr. John Evans, praying for the establishment of quarantine regulations for the prevention of the spread of cholera. U. S. Senate. Mis. Doc. No. 66.—Rhode Island Twelfth Registration Report.—L'Union Médicale, Dix-neuvième année, Nos. 143-146, 150-155. Vingtième année, Nos. 1-20.—Introductory Address at the opening of the Sixth Session of the Miami Medical College, of Cincinnati, Nov. 1st, 1865, by George Mendenhall, M.D., Professor of Obstetrics.

DIED.—At Eastport, Me., 20th ult., Dr. Robert Mowe, 79.—At Perth Amboy, N. J., 3d inst., Dr. Henry M. Stone.—At Ridgefield, Conn., 12th ult., Dr. Nehemiah Perry.

DEATHS IN BOSTON for the week ending Saturday noon, March 3d, 69. Males, 37—Females, 32. Abscess, 1—apoplexy, 1—asthma, 1—inflammation of the bowels, 1—disease of the brain, 3—bronchitis, 2—cancer, 2—cerebro-spinal meningitis, 2—consumption, 12—convulsions, 1—croup, 4—cystitis, 1—diabetes, 1—diarrhoea, 3—dropsy of the brain, 6—dysentery, 1—scarlet fever, 3—infantile disease, 3—intemperance, 1—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 2—old age, 1—peritonitis, 1—premature birth, 1—scalded, 2—scrofula, 1—disease of the stomach, 1—unknown, 4.

Under 5 years of age, 31—between 5 and 20 years, 6—between 20 and 40 years, 10—between 40 and 60 years, 14—above 60 years, 5. Born in the United States, 49—Ireland, 13—other places, 7.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXIV.

THURSDAY, MARCH 15, 1866.

No. 7.

FEMORAL ANEURISM TREATED BY IMMEDIATE COMPRESSION.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By BUCKMINSTER BROWN, M.D.

Mr. E. S., a healthy, muscular man, about 38 years of age, called upon me July 11, 1863. Ten days previously he had first noticed a throbbing in the right groin. This had been gradually increasing. I found a pulsating tumor, about three and a half inches in diameter. The swelling was soft, and the fluid apparently just beneath the skin. Pressing with the finger, the posterior walls could be felt, the end of the finger being surrounded by pulsating fluid. The diagnosis was, aneurism of the femoral artery at its exit from the pelvis. Remembering, however, that experienced surgeons had sometimes been deceived by a suppurating gland in the vicinity of a large artery, I decided not to alarm the patient until I had made a second examination. I advised tincture of iodine painted upon the swelling. Upon a second examination, a few days afterwards, I found the swelling had increased and the throbbing much augmented. The finger pressed upon the tumor was forcibly lifted with every pulsation of the heart. Dr. Warren examined the patient July 31, and coincided in the diagnosis, and a trial of the treatment by immediate pressure was decided upon. The patient was directed to stand and walk as little as possible. About this time his health began to fail, and I advised him to go into the country for a short time, and while there that he should gradually accustom himself to the use of weights upon the tumor. He was directed to lie upon his back, and apply a bag of shot weighing ten pounds. Three times a day the weight was to be removed for an hour, and a bag of ice applied. This treatment was continued two weeks, when the weight was increased to fifteen pounds. At the expiration of another two weeks the patient returned to Boston. During these four weeks Mr. S. had obeyed implicitly my directions. The weight had been kept on the tumor day and night. It had caused a good deal of pain, and he had consequently obtained but little sleep. I found, on his return, there was a change

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for the better. Less throbbing and the tumor somewhat diminished in size. Three times a day he had walked from the bed to the lounge, and this was all the exertion he had made. He was now directed to lie persistently upon his back, and to make no voluntary effort whatever. He was carefully lifted upon the lounge in the morning, and at night carried to his bed. Ice was used for an hour in the night as well as in the day; as a change from the weight, this was a great relief. This course was pursued for some weeks, when, at the suggestion of Dr. Warren, I commenced using cannon balls, in order to concentrate the weight more accurately over the tumor. The first ball used weighed twelve pounds. In a short time this was doubled, using a ball weighing twenty-four pounds. These balls were enclosed in a bag, which was secured to his person in such a way that it could not slip. The twenty-four pounder at first could be borne only from two to five minutes. The bag of shot, the twelve-pound and the twenty-four-pound balls were used alternately for another four weeks. The result was encouraging. The pulsation was less forcible, the tumor had lessened and its parietes had become hard and comparatively inelastic, and the artery below the aneurism was evidently diminishing in calibre. The patient was now able to bear the weight of the twenty-four pound ball constantly during the day, except when relieved by the application of ice. His diet was carefully regulated; meat was interdicted, and only light, farinaceous food allowed. About this time I discovered a small pulsating tumor on the top of the right foot, at the base of the metatarsal bone of the great toe—probably a dilatation of the *arteria dorsalis pedis*. This was cured in a short time by pressure with a piece of India-rubber and a bandage. In order to check circulation in the limb as much as possible, I applied a bandage from the toes to the groin. This afterwards gave place to a firm, silk, elastic stocking, two inches less in circumference than the leg, extending likewise from the toes to the groin. I also had made a strong leather belt to pass round the hips, with a groin strap. By this means I was able to produce powerful pressure upon the bag of shot, which was worn during the night.

This treatment was continued, with little variation, from October, 1863, to June, 1864. The artery below the aneurism was now extremely small and its pulsation scarcely perceptible. The swelling had much diminished in size, had become hard, and its action comparatively feeble. I now decided to continue the treatment which had thus far been attended with so favorable a result, but to apply my pressure in another form, and, if possible, in such a manner as to admit of locomotion. A wide, strong, firm leather belt was made, thoroughly padded, which was fastened tightly around the hips; to this was attached a strap passing from behind the trochanter to buckles over Poupart's ligament. A pad was adapted to the tumor—hard, oblong and convex, with a block-tin back. This pad was held

in position by the strap passing through loops to the buckles. By these means I found I could apply a very considerable amount of force. These straps having been adjusted, I allowed the patient to sit up and walk a short distance each day. At first his legs were very weak; he rapidly gained strength, however, and was soon able to walk out, and in September, 1865, he began to attend to business, walking once a day from the neighborhood of the Boylston Market to Tremont Row. The pad was so accurately adapted to its intended position, and so firmly held there, that motion of the joint did not displace it, and thus a strong pressure upon the tumor was insured, even during active exercise. He continues to wear the belt and pad night and day, never removing it, except when in the horizontal position, and then only for a few moments for the purpose of bathing the part or to dress the excoriations produced by the belt upon the hips. On my last examination, about three weeks since, the artery below the swelling could not be felt, having, so far as could be ascertained, become obliterated by the constant pressure. The tumor pulsated feebly, had become harder, and had little elasticity.

The patient was upon his back ten months, and has been under surveillance between sixteen and seventeen months; during the first part of this time the pain and weariness wore upon him somewhat. His health, however, continued good, and his digestion was rarely disarranged. After five months he had become accustomed to the treatment, and began to grow fat; and when he left his chamber he found he had gained twenty pounds during his confinement. I had, it is fair to state, an extraordinary patient to deal with. Mr. S. bore pain, continuing night and day for so many months, with a fortitude and even cheerfulness which could not be surpassed.

The result of the treatment by pressure in this case is certainly satisfactory. The attendant circumstances were such as, from the first, to indicate an almost hopeless prognosis. The nature of the disease, its situation just beneath Poupart's ligament, must render any operation which might have been attempted exceedingly dangerous, if not probably fatal. The ligation of the external iliac is an operation certainly not to be undertaken but as a last resort. When, in addition, we consider the aneurismal tendency of the arteries, as indicated by the swelling of this nature on the dorsum of the foot, the aspect of the case was sufficiently discouraging, and a favorable result from an operation could not have been anticipated. To check the flow of blood through the aneurism by pressure applied above was impossible, as the tumor was directly upon the border of the pelvis. The application of immediate pressure in any other way than that employed, as by tourniquet, must necessarily have been attended by disadvantages, and was—after being duly considered—rejected. The course pursued was one which required constant vigilance to guard against excoriation and ulceration of the skin over the swelling, and this, by great care, was prevented. The belt

around the hips, which was necessarily tightly strapped in order to obtain a firm purchase for the compressing strap, has from time to time caused sores which have been difficult to heal. There has been no complaint of numbness of the limb, nor any tendency to paralysis. The diseased leg, at the calf, is one and three fourths inches larger than the other.

TWO CASES OF POLYPUS.

By T. H. CURRIE, M.D., Enfield, N. H.

[Communicated for the Boston Medical and Surgical Journal.]

I HAVE recently been called to treat two cases of polypus that were of great interest to me, as they presented some features that I had never met with before.

CASE I.—Mrs. S., aged 38. Has had four children, the youngest of which is 8 years old. Four years ago she had difficulty in passing water. At one time she was obliged to call in a physician, who tried to introduce a catheter, but not succeeding in relieving the bladder of its contents, he decided that there was no urine in it. A few hours after she voided water, and it did not pass with the usual sensations. She remarked that it passed into the vagina, and felt as it did when she used warm-water injections. She also suffered severe pain when the catheter was used. There has been soreness in this region ever since. From about that time she has suffered very much from what she supposed to be menorrhagia, which at times entirely prostrated her and confined her to bed. I saw her two years since, and made a vaginal examination, and discovered a tumor attached to the anterior wall of the vagina, about two inches from the meatus, where she said there had been soreness since the catheter was introduced. I proposed a removal of the tumor, which was about the size of a man's fist, but she declined.

Dec. 25th, 1865.—I was called to see the patient again, and found her very low, looking as though she had lost the last drop of blood. There was a stench in the room such as I had never met with before under any circumstances. She gave me the history of her case for two years past, and it was terrible from beginning to end, she having suffered severe pain all the time, except when under the influence of opiates. The tumor had steadily increased in size. For a year past it had protruded beyond the labia, and so impacted the vagina that she was obliged to press it back from the urethra with her finger in order to evacuate the bladder. I found a portion of the tumor between her limbs as large as a pint bowl, black, and insensible to the touch. The vagina was so filled that I could not reach the attachment or pedicle to remove the whole mass at once, therefore I cut away about two pounds with the scissors and knife. Whenever there was bleeding I used ferri persulphas. She seemed so exhaust-

ed that I deferred the completion of the operation until the next day. I then cut and removed enough of the tumor to permit me to reach the pedicle, and applied a ligature close to the walls of the vagina and cut it off with the scissors without losing an ounce of blood. In four days the ligature came away with what remained of the pedicle, without any bad consequences whatever.

I prescribed quinine and iron, with wine, and she began to improve immediately. In about four weeks she was able to sit up a part of the time, and since then has gained rapidly. Now, Feb. 21st, she is able to do most of her work, walks about the streets with ease, and has no difficulty in evacuating the bladder. Four weeks after the operation I examined the vagina with the speculum, and found the cicatrix looking perfectly healthy. The tumor was fibroid.

CASE II.—Jan. 25th. Mrs. C., aged 45. Has had two children, the youngest now being 16 years old. Has menstruated regularly up to November last. Never had any difficulty in menstruation. The last of December the catamenia appeared, but did not stop as usual. She kept about house until the above date, when I was called to see her. She was confined to the bed from the loss of blood. After trying the usual remedies for such cases without any benefit, I made an examination per vaginam and found the uterus considerably enlarged, leading me to suspect pregnancy or polypus. Prescribed one drachm of wine of ergot every half hour until she should have severe and regular pains, when it was to be stopped. The flooding continued, however, notwithstanding the pains, requiring the use of injections of persulphate of iron to check it. About six hours after, the pains commenced again. The os became dilated, and a tumor protruded about an inch. I called the venerable Dr. Clough, of Lebanon, in consultation, and he recommended to inject the womb with a strong solution of alum and wait for further developments. In six hours I visited the patient again, and found the os contracted firmly around the tumor, with continued flooding. The patient was so reduced that there was constant faintness, with extreme restlessness. Thinking there was no time to be lost, I introduced my hand, which is not very large, into the vagina, well oiled, and commenced dilating the os with the ends of my fingers and thumb. It yielded readily, and as soon as it was sufficiently dilated to allow me to pass up my index finger and thumb between the tumor and the walls of the uterus I did so, and found the tumor attached to the fundus of the organ by a pedicle the size of my finger. With the thumb and finger nails I commenced amputating it close to the uterus. The operation did not cause the least pain nor increased flooding. I continued the operation until the tumor was disengaged, and removed it with my thumb and finger. It was four inches long and three and a half in diameter. The bleeding ceased immediately, and did not return.

Feb. 21st.—She is now able to sit up most of the time, and has not had the first symptom of metritis. The tumor was fibroid.

For a year past the patient has been afflicted with dyspnœa much of the time, with severe palpitation of the heart, but since the operation she has had no attack of either.

Query.—Had the catheter anything to do with the tumor in the first case?

February 21st, 1866.

ALUMINUM IN DENTISTRY.

By AUGUSTUS MASON, M.D., Brighton, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

THE medical profession, in its medico-legal and hygienic departments, has very intimate relations with dentistry. As custodians of the public health, physicians should be thoroughly acquainted with the metals and alloys used for dental plates, and with the safe or pernicious character of all substances used in the mouth. Dentistry, in some form, has become so indispensable and universal a requisite of our social condition, that in addition to the obvious local effects of cheap or poisonous dentistry, the physician may as wisely interrogate the mouth for an explanation of obscure constitutional affections as he has heretofore suspiciously criticized the wall-paper, the water, or the culinary implements.

I have strong reasons for believing mercurial pastes are still clandestinely used for plugging teeth, though they have long since ceased to be used openly, professional and public opinion having secured their merited condemnation.*

The use of red vulcanite as a base for artificial teeth is open and universal, and if there is any virtue in homœopathic triturations, or the cumulative effects of minute doses, the experiment of constitutional poisoning by cinnabar is being tested by this generation on a most stupendous scale.

I am aware that most physicians, even the best informed generally, were until lately (if they are not now) ignorant of the composition of the red vulcanite, though the medical journals have repeatedly called attention to the subject;† and that to arouse the profession and the public to any source of danger requires persistent effort or the panic of some startling development.

Certain qualities have introduced the vulcanite to popular favor (in ignorance of its composition), and the introduction of some desirable and equally efficient substitute will hasten its disuse.

Dr. Keep's brief paper on the use of aluminum as a base for ar-

* The day after this was written, a gentleman came to my office to consult me about an aching tooth. I found it recently plugged with an amalgam of mercury and silver. In such cases the tooth must generally be lost, owing to the difficulty of removing the filling.

† Vide London Lancet, American reprint, vol. ii., No. 1, 1861, p. 64; Boston Medical and Surgical Journal, vol. lxi., p. 164, et al.

tificial teeth, read before the Massachusetts Dental Society and printed in the last number (Feb. 15th) of your valuable JOURNAL, will probably, by the value of his reputation, recal the attention of dentists, to some extent, to new experiments with that metal.

It is to be regretted that Dr. Keep has not detailed more fully the history of the application of aluminum in Europe and this country, with the reasons, if any, leading to its utter neglect.

I shall endeavor to supply a portion of the void left by Dr. Keep, together with a concise statement of my connection with bringing the article anew into the field of notice and experiment.

In the summer of 1864, Dr. Fowler, of Yarmouthport, had proposed to make a set of permanent teeth for a member of my family, upon a rubber base. Gold was at a high premium. Learning that the red rubber was colored with a large quantity of cinnabar, or bisulphuret of mercury, he came out to my house in great excitement, with the idea that if an innocuous color could be found to replace the cinnabar, or a cheap and desirable substance for gold or red rubber, it would be worth a fortune to the discoverers.

An agreement was therefore made, at his urgent request, that I should immediately investigate the subject; that he should conduct the laboratory work and experiments, and the results, if any, should be equally shared.

It is sufficient to say, that having investigated the properties of the whole list of metals, I soon became aware that there was no known sulphuret, with the proper color, that could be used as a substitute for cinnabar, and in this opinion I was fortified by subsequently learning that the whole field had been thoroughly worked by competent chemists, with unsatisfactory results, and for the very same end, i. e., to avoid the poisonous or supposed poisonous properties of the cinnabar.

In studying the series of metals and their compounds, I found but one that had the requisite properties for use in the mouth as a substitute for the metals already employed, and this, from its chemical description, and from what I knew of its actual employment for domestic purposes, appeared every way suitable. This was aluminum.

Having, therefore, explained to Dr. Fowler the uselessness of further experiments and researches for a substitute for cinnabar, I proposed that our experiments should be tried with this metal.

We visited the Public Library of Boston, thinking that we might find there all that was known in regard to aluminum. The Librarian most courteously assisted us, but I am sorry to say that the information obtained was very limited, and led us to suppose our field entirely unexplored.

Some ingot aluminum was purchased and rolled into plate, but the aluminum would not solder.

A set of teeth was, however, made without difficulty, as the process of using vulcanite in connection with metallic plates was well

known to dentists at that time. The great resistance of aluminum to the action of sulphur and its compounds rendered it singularly adapted to combination with rubber in the vulcanizing process.

The set was inserted in the mouth for trial, and found to be remarkably clean and tasteless. The red vulcanite was used in this set, as we had no plastic material for black vulcanite.

Our attention was still directed to working up a set wholly of aluminum, and while we were discussing the possibility of soldering and filling the crevices by throwing down the aluminum from solution by galvanism, my attention was attracted to an advertisement of a patent for making a base for a set of teeth entirely by that process.* This I hunted up, and notified Dr. Fowler, and together we inspected the models, which were in the hands of J. M. Batchelder, a gentleman of inventive ability, but not the patentee of this process. This gentleman had, however, been trying some successful experiments in the use of vulcanite for telegraph insulation, and fortunately had some unvulcanized rubber in his possession. This was obtained in small quantity, tried with aluminum, and found to work handsomely.

The product was objectionable only on account of color, but was free from deleterious qualities. The main purpose of our experiments seemed to be secured. I therefore forwarded a fresh supply of aluminum to Dr. Fowler, and as soon as possible a sufficient quantity of prepared unvulcanized rubber, which I obtained after great effort and trouble, for the construction of specimens to be forwarded to the Patent Office. This patent was to be in our joint names, and the expense divided.

It would be foreign to the purpose of this paper to detail the course pursued by Dr. Fowler to obtain the patent in his own name. It suffices to say, I discovered his perfidy at the last moment. I at once procured some more aluminum, assisted with my own hands in rolling it, and employed a dentist to make up a set of teeth.

Relieved of the incubus of the secret, I could obtain information beyond the range of scientific works, to which I had been confined. I could consult persons, and soon became aware of new facts in regard to aluminum, which I will proceed to detail.

I consulted Mr. Farmer, with whose name I was familiar in connection with alloys of aluminum, and who was considered an expert on the subject. Mr. Farmer informed me that aluminum plates had been used several years previously by Dr. Fiske, of Salem. Such I found to be the fact, and also that Dr. Fiske was well informed in regard to the previous use of aluminum in dentistry. In a letter to me from Dr. Fiske, dated the 20th of January, 1865, he writes that he made a set of teeth upon an aluminum base for Col. P., of Salem, on the 28th of February, 1859. Col. P. brought his aluminum from Europe where, in 1858, its employment in dentistry was attracting

* John Johnson, Saco, Maine, patentee.

considerable attention.* The aluminum bar was rolled by Dr. Fiske, and the teeth fastened on by aluminum rivets through the body of the tooth. The set was made without difficulty. It is still in possession of Col. P., and occasionally worn.

Dr. Fiske, whose mechanical and inventive genius is very remarkable, took my aluminum plate and returned me a complete set of teeth, made with perfect ease at the first trial, the aluminum plate containing an air chamber, which is wanting in the earlier sets of Dr. Fowler. The set made for me by Dr. Fiske I have in my possession. The teeth are attached by rubber.

Any dentist who has access to an old file of the *Quarterly Journal of Dental Science*, London, January No., 1859, will find a lengthy and interesting paper from the pen of Mr. Harrington, containing most of the facts now known upon the use of aluminum. The paper was read before the College of Dentists Oct. 5, 1858. Mr. Harrington had experimented one year. The following is a summary of his conclusions:—

That cast aluminum plates stood well, were without taste or unpleasantness of any kind, and were in no ways affected by the saliva, or secretions of the mouth—in fact, everything one could desire.

That in contact with any other metal, or if wrought aluminum (rivets, for example,) were used with cast aluminum, strong galvanic action set in, with a saline taste, and gradual decomposition.

That wrought aluminum would decompose when used alone, and that the use of the hammer, roller or file would produce a decomposable surface.

His idea of using cast plates arose in the first place from the known difficulty in soldering, and the fact that by his process plates could be cast with facility.

In this country, cast plates were made by Dr. D. Van Denburgh, of Oswego, N. Y., in 1858, without the knowledge of their employment abroad. He, however, subsequently learned that there was a patent taken out in England in 1855. His experiments were perfectly satisfactory. In fit, strength, lightness and mechanical beauty his plates left nothing to be desired. Their recommendations were, extreme lightness, resistance to acids and sulphuretted compounds, and the limited extent to which aluminum could be alloyed. It was eight times lighter than gold, and yet in the same bulk of greater strength. Complete upper sets, with the teeth, might be made not weighing more than half an ounce, and the heaviest need not weigh over fifteen pennyweights.

For more full particulars of Dr. Denburgh's conclusions, see the *Dental News Letter*, published by Jones, White & McCurdy, April and July Nos., 1859.

In another periodical I found a complete summary of the processes

* Aluminum wire was successfully used for sutures in surgery in England in 1858. See Braithwaite, Part xxxviii.

for manipulating aluminum. I thus discovered that we had been ploughing an old fallow, but perhaps with an improved plough. I came to the conclusion that my proper remedy against Dr. Fowler was by a suit in equity, though probably his patents would not be valuable.

1st. Because a re-issue to Dr. Cummings made his patent to include sets where rubber was used in part.

2d. Because of various patents, especially those of the Messrs. Assay, of Philadelphia, in 1860, and Steinberg, of California, in 1861, covering the use of all metallic plates with rubber.

3d. Because of the previous use of aluminum.

I made an attempt, by writing to Dr. Van Denburgh, to ascertain his experience of the wear of aluminum, since the date of his communication to the *Dental News Letter*, but obtained no reply.

The trial set of rubber and aluminum used in my family has been in constant wear about eighteen months. There is a possible loss of substance by attrition, but unfortunately, not having been weighed, the loss is mainly conjectural.* It has recently cracked, and the fissure has extended through the rubber rim, and I fear the set is permanently ruined. The plate was undoubtedly too light. It has, however, been free from taste and remarkably clean—in these respects much superior to the gold plate previously worn.

I have no doubt that the use of aluminum as a base for teeth has fallen into undeserved neglect, and that it is eminently adapted for the purpose;

That cast sets are cheap, of facile manufacture (under pressure), and combine all the advantages pointed out by Dr. Keep in the use of rubber and aluminum;

That possibly perfect sets may be thrown down from the solution in aqua regia by the galvanic process, with equal or greater advantage;

That rolled plates with black rubber are innocuous, free from galvanic action, light and cheap, unless too many patents are paid for;

That the combination of aluminum bronze with rubber entails the risk of galvanic action and slow decomposition;

That the use of red rubber with aluminum does not obviate the objection to the use of entire rubber sets, namely, the presence of cinnabar in the mouth.

Aluminum has considerably fallen in price of late years, and, when improved processes of manipulation have freed it more from silica, will probably be more ductile and easier worked.

In modern chemical nomenclature the metal is called aluminum, and not aluminium, as Dr. Keep has it.† I called it aluminium to Dr. Fowler, as I found it so named in my old chemistry, but I find it

* Muriatic acid and vinegar have some solvent action on aluminum.

† [Both terminations—in um and ium—are used by modern chemists.—Eds.]

so called in the dental magazines. Dr. Fowler's name should be N. C. and not C. A., and I do not envy him all the honor he may obtain; when the field for a reputable credit was before him, if he had not been led astray by the illusory hope of a dishonorable profit.

Physicians and dentists, it seems to me, should encourage repeated experiments with so innocuous and desirable a substitute for red vulcanite. It often happens that the most valuable discoveries are shelved at the first trial, from the difficulty of pushing them against the obstinate prejudices and conceits of mankind, which, when re-introduced at a favorable moment, are found not only to meet a pressing need, but to lead to higher planes of progress.

February 16, 1866.

CONTAGIOUSNESS OF CHOLERA.

To the Editors of the Boston Medical and Surgical Journal.

I NOTICED in your JOURNAL of Feb. 8th, some strictures by "*A Practical Physician*" (so self-styled) on a letter of mine to Dr. Sayre, Health Commissioner of New York, in which, rather by ridicule and sneers than argument, he attempts to contradict or disparage the views therein expressed. If cholera were not too serious a subject for ridicule, I might, perhaps, reply to your humorous correspondent in a similar vein; but I think a more serious style more befitting so important a subject.

As to the matters alluded to, by way of query, I leave the relevancy of the questions to the judgment of your readers. I congratulate your city, however, on the recent change of views of Dr. Read, your excellent City Physician, and trust you will have a quarantine sufficiently stringent to leave no possibility for cholera to enter your port and city. I hold, with, I believe, a majority of our profession in this and foreign countries, *that cholera is portable in some way, and communicable*, and that it is not only the right, but the duty of all communities and governments to establish strict quarantines, and if such as they should be they will compensate for all their inconvenience and expense. The quarantine regulations and restrictions heretofore established in our ports against the introduction of cholera have been worse than useless, vacillating, inefficient, differing in different ports, and never properly enforced; and then, because they proved ineffectual, the wise conclusions were adopted that quarantines are of no use, that the whole atmosphere is pregnant with cholera-poison, the disease is not contagious, or carried by those affected with it; and if any physician holds to the latter doctrine, the case is not one for argument or facts, but only for ridicule! I certainly would agree with some of your Boston faculty and say, let all quarantines be abolished and done away with, if rational ones cannot be instituted and their observance despotically and unremittingly enforced. In the case of

cholera, *cholerine*, once called "*a premonitory diarrhœa*," but which is a mild form of cholera, can communicate the disease as well as severe, acute and spasmodic cases; just as *varioid* will communicate the severest forms of smallpox to the unprotected, and quarantines must exclude all such cases.

I am happy to notice, also, that the General Government is moving in this matter, and that Senator Ramsey has introduced the following joint resolution, which it is hoped and expected will be passed unanimously.

Resolved, That it shall be the duty of the Secretary of War, with the coöperation of the Secretary of the Navy, whose concurrent action shall be directed by the Commander-in-Chief of the Army, to cause a rigid quarantine against the introduction into this country of the Asiatic cholera through its ports of entry, whenever the same may be threatened by the prevalence of said disease in countries which have direct commercial intercourse with the United States.

Second. That he shall also enforce the establishment of sanitary cordons to prevent the spread of said disease from infected districts adjacent to or within the limits of the United States.

Third. That said Secretaries are hereby authorized to use the means at their command to carry out the foregoing provisions.

Fourth. That it shall be the duty of the Secretary of State to open a correspondence with the foregoing powers whose proximity to the United States shall endanger the introduction of Asiatic cholera into this country through their ports and territories, soliciting their co-operation with this Government in such efforts to prevent the introduction and spread of said disease.

The measures about being carried out in New York, will be seen from the following statement in one of our daily papers:—

"*Quarantine—a New Site Selected*.—The Quarantine Commissioners have selected as a site for the erection of a quarantine hospital, store-houses, &c., the 'West Bank,' which is about two miles directly south of Fort Tompkins, and about an equal distance west of Coney Island.

"They purpose to erect three wooden buildings on the 'Bank,' each to be 320 feet long and 220 wide. One is to be used as a hospital for cholera patients, of whom it will accommodate 300. It is to be one story in height.

"A second building is to be known as the 'hotel.' It is to be two stories in height, and capable of affording accommodations for one thousand persons, with apartments for the physicians, officers, &c. All persons arriving on vessels infected by the cholera, but who have not taken the disease, are to be sent to this building. Convalescents will also be accommodated there.

"The third building, to be known as the warehouse, is to be used for the storage of goods that come in cholera-infected ships, and

upon which duties are to be paid. It will be six hundred feet south of the hotel, and of the same dimensions. It is to be one story in height.

"The estimated cost of the hospital is \$421,000; of the 'hotel,' \$435,586; of the warehouse, \$427,163.

"The foundation of the building will be constructed of logs and stones, the piers being nine feet above high-water mark. Vessels of heavy draft can conveniently land cargo and passengers at the wharves.

"The work cannot be commenced until an appropriation therefor is made by the Legislature."

I shall not, at present, argue the great question of the *portability or transmissibility of cholera by means only of human intercourse*. The proposition is one, as it seems to me, as capable of demonstration as any in the whole range of etiological science; and the opposite one, of a *general atmospheric impregnation, or contamination with cholera-poison*, is so irrational and unphilosophical, so absurd, so opposed to the historic progress of cholera, in all countries and under all circumstances, that it is difficult to conceive how any mind, governed by the ordinary rules of evidence, can possibly adopt it.

Peekskill, N. Y., March 7th, 1866.

CHARLES A. LEE, M.D.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.
BY WM. WARREN GREENE, M.D., SECRETARY.

Internal Hemorrhage from a Fall; Death; Autopsy.—Dr. Root, of Pittsfield, reported the case of a boy, 5 years old, previously healthy, with the exception of occasional attacks of colic, which were readily controlled by simple means. About 4, P.M., while at play in the yard, he fell, striking the abdomen upon a stick of wood. He came into the house, complaining of pain and faintness, but soon fell into a quiet sleep, which lasted two or three hours. In the evening, symptoms of peritonitis appeared and rapidly increased in intensity, which were not controlled by treatment; collapse supervened, and early next morning a convulsion terminated the case.

The mother remarked, that for a year previous she had noticed an unusual fulness of the abdomen, but it was general—no more upon one side than the other.

The parents consenting, an autopsy was made by Drs. Greene and Smith, Dr. Root being ill.

On opening the abdomen, over two quarts of fluid blood were found in the peritoneal cavity. After removing this, a cyst was found, formed by the separation of the mesenteric duplicature of the peritoneum, capable of holding a quart. It was partly filled with blood, which was supplied to it by a branch of the mesenteric artery, commencing with the cyst close by the intestines. The sac varied very much in thickness at different points. Several bands of organized lymph ex-

isted, as did also sacculations from the general cavity. The portion nearest the abdominal wall was extremely thin, and in it was a small opening, allowing the contents of the cyst to escape into the peritoneal cavity, and thus explaining the cause of death. Indications of recent peritonitis were present.

Dr. Root remarked that when he first saw the case, perforation of the intestine was suspected, but from the slight character of the blow and the previous good health of the child, as reported by the mother, it did not seem possible.

The specimen was shown the Society, and is preserved in the College Museum.

Tubercular Peritonitis; Death.—Dr. ALLEN reported the case of a married lady, aged 35, who had never borne children. A year ago last December she ceased menstruating, up to which date she had been regular. About this time she suffered from morning sickness and various anomalous symptoms, which led to the suspicion of pregnancy. As these continued for several weeks and were associated with marked debility and emaciation, Dr. A. was consulted. At this time there was no abdominal pain or tenderness; the alvine discharges were natural, as was the urinary secretion. There was a well-defined hypogastric tumor, resembling very much a distended bladder. Elsewhere the abdomen was no fuller than usual. Percussion over the tumor elicited tympanitic resonance. The bladder was sounded and found healthy, and the uterus free from disease and of normal length.

In spite of all medication she gradually sank; the irritability of the stomach continued, the emaciation increased, strength diminished, and without ever having had, from first to last, *any pain or tenderness* of the abdomen, she died about five months from the cessation of the menses.

An autopsy, made by Drs. Allen and Greene, revealed the existence of extensive tubercular peritonitis. Everywhere, with one exception, the peritoneal surfaces were firmly glued together by organized lymph, and studded by tubercular masses from the size of a millet seed to that of a bean. A few of the mesenteric glands were tubercular, and similar masses were found on the mucous surface of the ileum. The hypogastric tumor was produced by a distended portion of the ileum, this being the only point where that organ was not firmly bound down by adhesions.

Scarlatina.—Dr. SMITH, of Pittsfield, reported the following case of scarlatina. A child three years old was taken on Saturday night with profuse diarrhoea and vomiting, which was followed in a few hours by the characteristic rash. After the first two or three alvine discharges, each one was accompanied by a convulsion. These were repeated several times during Sunday, the last one occurring at 10, P.M., when coma supervened, and the patient died early Monday morning. Dr. S. asked the opinion of the Fellows present as to the propriety of venesection in the so-called "congestive" forms of scarlatina.

Dr. PRATT queried whether there was in these cases congestion proper, but thought nervous prostration the essential element of the disease, this resulting, of course, from the action of the *materies morbi*, whatever it is. He related an interesting case in which a little boy, about 8 years old, was attacked in the evening with sore throat and general febrile action, followed in the morning by the rash. During the day delirium

occurred, followed by partial coma; rash of a mahogany color. Treated with chlorate of potash and quinia (the latter in three-grain doses every four hours) and supporting diet. In a week convalescence was established, which, however, was interrupted by the occurrence of well-marked periodical chills. These were controlled by twenty-grain doses of quinine in the intervals. A diarrhoea which occurred at this time was controlled by the bi-tannate of quinia. He supposed that this would have been called one of the "congestive" cases. He remarked also, in this connection, that he believed the *blood conditions* to be the same in this disease as in diphtheria.

Dr. BREWSTER, who saw the case reported by Dr. Pratt, hardly thought it would come under the class of "congestive" cases, as the term was used. He had repeatedly seen cases which were apparently much benefited by local depletion.

Dr. Greene believed that in scarlatina, as in all other zymotic diseases, we occasionally have visceral congestions or congestive inflammations, which are sufficiently severe to abolish the functions of important organs, and thus destroy life mechanically, before the circulation can be equalized by any medicines introduced into the system. There is not time for absorption or elimination. In fact, the congestion itself may have abolished these functions. Nature often teaches us a great lesson by spontaneously unloading the blood-vessels of a particular part, even in low forms of disease, to the great benefit of the patient; and so we, at the same time we are supporting the general strength, and even striving to increase the amount of blood in the system by all the proper means, may employ local depletion to unload an engorged organ and allow it to resume its functions. These cases are, of course, *exceptional*, and the great difficulty is to discriminate between the two classes. In this connection, Dr. G. related a case which occurred in the practice of Dr. Lucas, of Chester. A young man, vigorous and of sanguine temperament, was attacked with scarlatina. Soon after the appearance of the rash it became dark in color, pulse small and rapid, eyes suffused, active delirium, followed in a few hours by coma. Dr. L. bled him from the arm "until he woke up." The amount taken was not measured, but was "very large." Pulse became full, soft and slower; rash of proper color, &c. A slight recurrence of head symptoms the following day was relieved by a slight venesection, and he made an excellent recovery.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 15, 1866.

BOARDS OF HEALTH.

If anything had been hitherto wanting to convince the public of the entire inefficiency and absurdity of our present system of boards of health, it was amply furnished in the sanitary history of last summer. A large tract of the city was allowed to be shut off from drains and sewers, and to become a sunken and stagnant cesspool; the filth of

entire wards was turned into a shallow basin to decompose and poison the air of half the inhabitants; a similar nuisance of several years existence was suffered to continue within a few rods of the so-called "lungs of Boston," in spite of repeated remonstrance and startling warnings; propositions for the establishment of public baths were rejected; and all the densely populated quarters were in a miserable state of uncleanness. Yet every one of these evils might have been remedied; neither the means nor the power was wanting to the authorities whose duty it is to prevent and to correct such abuse of the laws of public health. Such neglect, however, will always be the rule as long as these important duties are entrusted to "aldermen and selectmen," as the present statute provides.

What can such unprofessional persons know of the laws of hygiene or of the means to ensure their administration? There are, it is true, consulting physicians, competent advisers, but experience shows that the advice of consulting physicians is seldom asked and rarely followed. What is wanted is a board of health so constituted that it shall possess both knowledge and authority, which shall oblige a heedless and dilatory city government to perform its duties and prevent the possibility of the recurrence of such a state of affairs as existed in this city last summer. Such a change is especially demanded before the cholera reaches us, and before the summer heats begin their work. The New York State authorities have just passed a stringent act creating "a Metropolitan Board of Health," to consist of four members, three of whom must be physicians, and the health officer of the port of New York. The board has been already appointed, and we are pleased to hear that their first official act was to elect Dr. Edward B. Dalton, son of our late esteemed citizen, Dr. John C. Dalton, to the important position of Sanitary Superintendent. Dr. Dalton's well-known executive ability, proved on many an emergency during the war, will peculiarly fit him for the arduous duties of his office.

We are happy to state that there is a bill already before our State Legislature asking for reform in this direction, and framed in accordance with the views of some of our most experienced sanitary experts. The Boston Social Science Association made this subject the order of discussion at its recent monthly meeting, and from the able paper presented on that occasion by Dr. H. G. Clark we make the following extracts:—

"Suppose it were announced to us, on some Monday morning, that during the preceding week there had been from ten to twenty deaths in Boston, from secret poisoning, and that the cases were well known to the police; and that this state of things should go on, from week to week, without arrest or discovery of the causes or criminals, through the year? Nothing could exceed the agitation and indignation of the community.

"But there are from ten to twenty deaths a week in Boston, and at that rate throughout the year—and by poison, too—the poison of badly ventilated, badly drained, and over-crowded dwellings, and by the unfit food and pernicious drinks of which their inhabitants have partaken.

"I think, then, I am within the strict bounds of truth, when I assert my belief that, since the night of the eighth of March, 1865, and to-night, there have been more than five hundred, perhaps a thousand,

unnecessary and preventible deaths in this town; and, of this number, the slaughter of the innocents 'of two years old, and under'—which first shocked the ears of all the world, as inaugurated by Herod—almost still finds its annual parallel in the records of our city register.

"The fact that this destruction does not follow the visible stroke of the tyrant's sword, or the commendation to our lips of the cup of poison by the hand of an ever-ready Borgia, makes no difference in the result. It is only a question of time and place. * * * * *

"A consideration of some of the powers, duties, and functions proposed to be conferred upon, and to be exercised by, Boards of Health, will make it very plain that these boards should be composed of 'competent, discreet, and suitable persons,' and, when so composed, it is for the interest of the public that they should be invested with the highest authority.

"These boards may be general or local—centralized State boards, or local boards for cities, towns, or districts; and their duties will vary accordingly.

"The duties of general boards of health may be briefly stated to be as follows, viz.:—

"1. To consider and decide upon such sanitary questions as may be submitted to them by the State, or municipal authorities, or local boards of health.

"2. To diffuse, by reports or otherwise, information to the inhabitants of the State on sanitary matters; and to aid, by suggestions, orders, or regulations, the various local boards.

"3. To examine into the salubrity of the great institutions of the State; the safety of public buildings and factories; the security of life on railroads, &c. &c.

"4. To collect and collate statistics relating to life and health; as to the modes of employment, and of living; and the comparative healthiness of different localities of the inhabitants.

"5. To appoint suitable officers to carry out the plans of the board."

"With these important and multifarious duties, it is evident that boards of health require to be constituted in a manner which shall combine talents and capacities of a very varied character; thus there should be—

"1. Some medical men and sanitary experts.

"2. A Registrar to collect the facts on which the board may act.

"3. An engineer or surveyor, to give the plans, elevations, grades, &c., necessary in the construction of the various works.

"4. A lawyer or solicitor, whose functions are so obvious that it is not necessary to specify them; but his presence will always be required to protect and save the rights of all parties.

"The officers to be appointed by the Board would be—

"1. An executive or medical health officer, who must be, of course, a *physician*.

"2. Superintendents of cleaning, drains, &c.

"All of whom are to be under the direction, and acting under the responsibility of the board.

Boards of health, under the laws of the Commonwealth, cannot be properly constituted; the present statute making the *selectmen* in towns, and the *aldermen* in cities, *ex-officio*, Boards of Health. In

the nature of things, with but here and there an exception, of which we in Boston have had one or two, and, fortunately, one very thorough, sanitarian, in our principal cholera epidemic, in the person of the chairman of the Internal Health Committee, Mr. Henry B. Rogers, I think it will be admitted, a board so composed cannot be a proper board.

"They are not experts. They know only at second hand anything of sanitary laws. It is most important that the members of Boards of Health should themselves be familiar with the necessity for, and the grounds of action, in regard to matters in which they are called upon to legislate.

"Upon a board properly constituted, the whole community would rely with the utmost confidence. Such a board would, by its wise counsel, its steady-handed and reasonable measures, and that calmness and courage, which an intelligent confidence, and a knowledge of their ability to comprehend, and to face the threatened emergency, always confer on their possessors, stand, like the priests of old, between the pestilence and the people.

"The whole subject is now before a committee of the legislature, and a bill, the principal provisions of which I read, has been prepared, which, if passed in its present form, will go far to remedy the evils of which we complain. If a general (State) Board of Health could be established, it would be better still.

"SECT. 1. The corporate authorities of the various cities and towns of this Commonwealth are hereby authorized and empowered to establish Local Boards of Health, and to enact and enforce, generally and severally, such laws, ordinances, and regulations, as they may deem expedient or necessary for promoting the sanitary condition of the said cities and towns, and as are not inconsistent with the Constitution and laws of the State.

"SECT. 2. The said Local Boards shall, in all cases, be so constituted, that, at least, one third of their members shall be Doctors of Medicine, and that there shall be upon each Board, also, at least one lawyer, one engineer, and one registrar.

"SECT. 3. The said Local Boards of Health are also authorized when they may deem it expedient, to delegate to duly authorized agents, not exceeding two in number, and who shall be directly responsible to them, such powers as are necessary to the convenient exercise of the said laws and regulations.

"SECT. 4. All expenses which shall be incurred by order of the Board of Health, in the abatement of any nuisance, may be recovered of the owner or tenants of the real estate on which such nuisance existed, and shall also constitute a lien upon such real estate for two years after said expenses shall be incurred; and said lien may be enforced in the same manner as liens for taxes on real estate are enforced.

"SECT. 5. Full compensation shall be made to all persons who shall sustain any damage by reason of the exercise of the powers of this act.

"Upon its action, and upon the revision of these boards, so as to place the administration of these important and vital interests in competent hands, everything depends.

"New York has done a noble deed in the recent passage of a thorough-going Health Act—one which strikes at the root of the corrup-

tion and incapacity under which her splendid metropolis has so long suffered ; and we are likely, unless some radical action is soon had here, to be left as far behind her, in sanitary laws, as we have been hitherto in advance of her.

“ Upon the Legislature rests the responsibility of saying whether the Board of Health of this and other places shall be so constituted as that no more lives shall be unnecessarily sacrificed to the dangers of the present imperfect systems, or whether we shall be able to congratulate ourselves on an advancement in the science of humanity, upon the plans so long since adopted by the boards of health of Great Britain.

“ Finally, and practically, the question is, if, in Boston, there shall be for the future, *five hundred lives annually lost for the want of, or saved by reason of, APPROPRIATE LEGISLATION.*”

“ Dr. John Jeffries next followed, agreeing with the views of his predecessor that in the constitution of an efficient Board of Health scientific and thorough physicians should have a controlling voice. Physicians, in order to be equal to such a position, should be profound chemists and thoroughly versed in physiology. Such men would always exercise a controlling interest in the community whenever an epidemic or contagious disease threatened.

“ Hon. Judge Russell fully agreed with the theory that scientific physicians should constitute a leading portion of a competent Health Board. He charged upon the public here a lack of interest in the subject of disease which lay at their very doors. Advertise that the cholera was raging at Calcutta, and that sanitary measures were neglected there ; that the sewerage of Jeddo was defective ; that cleanliness was utterly neglected in Burrompoota, and that a public meeting would be held in the Music Hall on these matters, and there would not be a vacant seat ; but to a subject which was of vital concern to them, the community was listless and backward. He advocated warmly the features of the bill for a Board of Health as read by Dr. Clark. He said that a few months ago thirty-five men were robbed on the streets of Boston, and the public called upon the courts for prompt justice ; whether or not it was done it was not for him to say. Five hundred were poisoned in this city last year for the lack of sanitary measures, but the people seem indifferent. The need of an efficient board of health is greater as the cholera is feared. The government of Boston mean not to have that epidemic, at all events not a panic, and in illustration that science could avert it, he quoted Gen. Butler's success in keeping the yellow fever from New Orleans.”

Remarks favoring these views were also made by Drs. Read and Jarvis.

Messrs. Editors,—You or some of your readers may have noticed that one of the graduates at the commencement last week received his degree of Bachelor of Arts from Harvard University in July, 1864. To guard against the inference of laxity on the part of the Medical Faculty in knowingly allowing any breach of the rule of three full years of study by candidates for a medical degree, I mention that we have a certificate of three full years of study and a written explanation appended to it from Dr. Chandler Braman's preceptor. Dr. Braman commenced the study of medicine at the age of 16, at a time

when he did not propose passing through the undergraduate department of the University, and devoted two years to it at that time, twenty months to it since receiving the degree of Bachelor of Arts, and his leisure hours of the intervening period. This explanation is offered in justice to the graduate as well as to the Faculty, to whom the confidence of the profession in their integrity and carefulness is very important.

Very truly yours, GEO. C. SHATTUCK,
March 12, 1866. Dean of the Med. Faculty of Harv. University.

Foreign Intelligence.—The School of Medicine founded by Maximilian Hapsburg in Mexico has been attended by 200 students, but as seven years are required to complete their studies, it is doubtful if any of them graduate under his imperial patronage.

Prof. Romberg, of Berlin, lately received the congratulation of his colleagues through a deputation composed of Prof. Gräfe, Griesinger, Langenbeck, Traube and Virchow, on the celebration of his 70th birthday.

At the suggestion of Prof. Rokitsansky a committee, consisting of Profs. Wedl, Röhl and Klob, has been appointed by the Imperial Society of Physicians in Vienna to study and report upon Trichiniasis. Of the 350 persons affected during the late epidemic at Hadersleben, more than 90 have died. The village contained but 1800 inhabitants.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 10th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	50	40	90
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.8	38.2	80.0
Average corrected to increased population	00	00	87.15
Death of persons above 90	-	0	0

We are requested by Dr. Fowler to ask our readers to suspend their judgment with regard to the charges against him by Dr. Mason in this week's JOURNAL, in his article on the Use of Aluminum in Dentistry, until he has an opportunity of presenting his own statement of the facts in the case.

ERRATUM.—In our last number, page 127, 16th line from bottom, for Green, John Orne, A.B., Lowell, read Green, John, A.B., Boston.

PAMPHLETS RECEIVED.—The Restorative Treatment of Pneumonia. By J. Hughes Bennett, M.D., F.R.S.E. Third Edinburgh Edition. (From the Author.)—Memorial of the late Thomas W. Blatchford, M.D., read at a meeting of the Governors of the Marshall Infirmary, Troy, N. Y., by James Thorn, M.D.—Sermon on occasion of the Death of Thos. W. Blatchford, M.D., by D. Kendrick, D.D., Troy, N. Y.—Report of the Pennsylvania Hospital for the Insane, for the year 1865.

DIED.—At Randolph, Vt., March 2d, Dr. J. R. Pember, aged about 65 years.—At Chicago, Ill., 28th ult., from the effects of an overdose of morphine, Dr. Isaiah P. Lynn.

DEATHS IN BOSTON for the week ending Saturday noon, March 10th, 90. Males, 50—Females, 40. Accident, 3—inflammation of the bladder, 1—congestion of the brain, 1—disease of the brain, 7—bronchitis, 3—cancer, 1—consumption, 15—convulsions, 3—croup, 2—diarrhœa, 2—dropsy, 1—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 1—hæmorrhage, 1—disease of the heart, 1—infantile disease, 1—insanity, 1—intemperance, 1—congestion of the lungs, 1—inflammation of the lungs, 12—marasmus, 3—old age, 3—paralysis, 1—peritonitis, 1—puerperal disease, 2—purpura, 1—rheumatism, 1—smallpox, 4—teething, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 5—between 20 and 40 years, 22—between 40 and 60 years, 11—above 60 years, 15. Born in the United States, 65—Ireland, 18—other places, 7.

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No. 8.

CONNECTION OF INTEMPERANCE WITH DISEASE AND MORTALITY.

[Read before the Norfolk District of the Massachusetts Medical Society, January 10th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By EDWARD JARVIS, M.D., of Dorchester, Mass.

LOOKING at the human organization, it is a matter of interest to learn its susceptibilities and the effect of various external and internal agencies on its structure, on its operations, on its functions and its permanence of life.

It is very apparent that it has definite powers, and that these are given for, or may be applied to, definite purposes; and under certain conditions it can effect those purposes the most completely, it can maintain itself with the greatest energy and success, it can resist deteriorating or disturbing influences—the causes or attacks of disease—the most effectually, and continue its operation to the longest duration.

Any variation from these conditions—anything which interferes with the perfectness of the organization in the free performance of the organic functions—lessens the vital force, the sum total of human energy, the power to sustain the frame in its operations, to defend itself from the dangers that surround it and ward off the attacks of disease or recover from them, when they fix themselves on the human body.

It is plain that the organs were appointed to operate regularly. The internal organization was designed and arranged to support the external frame and supply it with force for action of the brain and the muscles.

The digestive system is simply appointed to prepare new material of blood, and of flesh to take the place of the old particles of flesh as fast as these are worn out or lose their vitality.

This digestive apparatus has a limited purpose and power. In order to do its work the most effectually and give the frame the most force and its highest capacity of mental and physical labor, it must have food exactly adapted to it—neither too much nor too little, neither too stimulating nor too oppressive.

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Intemperance, Disease and Mortality.

Any variation from these conditions, however slight, detracts from the perfectness and energy of the vital actions, and the available force, and, if increased sufficiently, it produces derangement and ultimately recognizable disease.

Anything received into the stomach which is not food, which is not fitted to become, and capable of being converted into, flesh, or of sustaining respiration, that does not contribute to the ultimate production and maintenance of vital force, lays a tax on the energy and power of the stomach which is not repaid by the increased capacity of action.

All faithful use of the stomach and due preparation of food yields a definite amount of force which may be expended in the ordinary labors of life. This force may be expended daily and hourly within the limits appointed or measure given, and yet the organs and their functions—the capital of life, or what is usually called the constitution—remain in a condition unimpaired, and the health will be sustained and life protracted. Anything which violates this condition, which quickens the vital actions without producing a corresponding basis of strength, which increases the expenditure of force without increasing the vital capital out of which this force springs, makes a draft on that capital, and, to that extent, vitiates or wastes the constitution.

The introduction of alcohol into the system violates both of these conditions. It lays an undue tax on the digestive organs and it quickens the vital operations. It stimulates the brain and the nervous system to an unnatural and unhealthy energy of action, which, being greater than can be permanently sustained, leaves the system correspondingly exhausted. It momentarily places a greater available force in the muscular system, and one can, for the time, labor more under this influence than otherwise; but this is not the permanent increase of force. All excess is but a draft on the constitutional force that lays behind. Of all these excitements, each in its degree disturbs the permanent and healthy functions and wastes the healthy powers, so that they afterwards operate with less certainty and less regularity.

The whole animal system, then, with its internal machinery acting with a diminished precision, with less energy to prepare the material of life and convert this into living flesh, is less able to sustain a vigorous constitutional force, less capable of accomplishing the average labors of man and of resisting the influence of destructive external agencies.

The question then comes, whether intemperate men are subject to more disease than abstemious men; and, if they are, to what disorders are they subject beyond others and to what extent.

We have much written upon these topics, and are told vaguely that much disease is caused by this indulgence, and that liver diseases, indigestion, consumption, insanity, &c., all grow more abundantly in

the alcoholized than in the untainted constitutions. Some years ago, when I was in a small country town, and had the whole medical supervision of a definite number of families, temperate and intemperate, I took exact account of the amount of sickness in these classes, measuring each by the number of days of sickness during which they were under my professional care. I found that the excess of the absolute bed sickness of the intemperate was fourteen per cent. over that of the abstemious. This did not include the slighter ailments, the impaired strength, the colds, the headaches, the indigestion, the days and hours in their long periods of broken constitutions when they were unfitted for their ordinary and healthy labor, when their force and available energies were at a discount, but only the marked and prostrating sickness which called for professional interference. Nor did this include considerable sickness and disabilities caused in others by intemperance, as when a stage load of passengers was overset by a drunken driver and several injuries caused, nor the sickness in families caused by the neglect and abuse of the intemperate head or member. Including all these, the excess would go much beyond the fourteen per cent., which was the result of the calculation.

We have less record of this than the importance of the case, the extensive prevalence of the use of alcoholic agents and the pathological state of the alcoholized people, and the effect of all these on private and public prosperity, seem to demand.

The next question is, what is the effect of alcohol on the duration of life?

Mr. F. G. P. Neison, actuary of the Medical, Invalid and General Life Insurance Company of London, investigated the chances of life and death in the abstemious, the temperate and intemperate classes. The latter, the intemperate class, was the principal object of interest, and the results of these observations as to health, disease, mortality and longevity were compared with the same in the general population of England, which, of course, included not only the abstemious and the temperate or moderate drinkers, but also the intemperate.

Mr. Neison, besides the opportunities presented in his office, issued circulars to trustworthy observers and obtained records of many persons of intemperate habits. It was the intention to include in the observations only such persons as were decidedly addicted to drinking habits, and it was not intended to bring within observation mere occasional drinkers, or what is usually termed generous or free livers. In his circular he said, "no case should be entered in the schedule unless the person alluded to was decidedly addicted to drinking habits during a considerable period of life."

The points of inquiry and record are described in the schedule which follows:—

INTEMPERANCE SCHEDULE.

DESCRIPTION.			DEATH.			Disease or Cause of Death.	Duration of Intemperance.	Remarks on the peculiar features of intemperate habits; whether they existed up to the period of death, and any other observations necessary.
Name or other Distinction.	Sex.	Profession or Occupation.	Date of.	Place of.	Age at.			

Mr. Neison's own observations at his office and the facts reported to him were analyzed and classified, and calculations made upon, and deductions drawn from, them. The whole, the statements of facts, the tables, calculations and results were all arranged in an exceedingly valuable and instructive report, which was published first in the *Journal of the London Statistical Society*, and afterwards in Neison's volume of "Contributions to Vital Statistics," from which these facts have been taken.

The following table, on page 204 of the "Contribution," is a condensed abstracts of Mr. Neison's facts, calculations and results.

Ages inclusive.	No. exposed to risk.	Died.	Mortality in 100,000		Proportion of Mortality		At the same rate of mortality as in England & Wales, deaths of intemperate would be
			Intemperate.	England and Wales.	Intemperate.	England and Wales.	
15-19	74.5	1	1,342	730	18	10	.5
20-29	949	47	4,953	974	51	10	9.2
30-39	1861	86	4,620	1,110	42	10	20.7
40-49	1635.5	98	5,992	1,452	41	10	23.7
50-59	966	62	6,418	2,254	29	10	21.8
60-69	500.5	40	7,992	4,259	19	10	21.3
70-79	110	20	18,182	9,097	20	10	10.
80-89	15	3	20,000	19,904	10	10	3.

The following table shows the equation of life, or equal chance of living, in the general population and among the intemperate.

Ages.	EQUATION.		PER CENT.		Average years lost.
	General Population.	Intemperate.	Enjoyed.	Lost.	
20	44 212	15.557	35	65	28.655
30	36.482	13.800	38	62	22.682
40	28.790	11.627	41	59	17.163
50	21.255	10.860	51	49	10.395
60	14.285	8.947	63	37	5.238

The different kinds of drink had different powers or effects in destroying life, or of accelerating its termination. Mr. Neison says:—

"The average duration of life after the commencement of the intemperate habits is—

Among beer drinkers,	21·7 years ;
among spirit drinkers,	16·7 years ;
among those who drink both spirits and beer indiscriminately,	} 16·1 years ;
and consequently the rate of mortality will be,	
among beer drinkers,	4·597 per cent yearly ;
“ spirit “	5·946 “ “
“ mixed “	6·194 “ “

The healthy rate of mortality in the general population, including all ages, the most perishable periods of infancy as well as the middle and safer periods, was for

Males - - - - -	2·3 per cent.
Females - - - - -	2·1 per cent.

“The average duration of life after the commencement of intemperate habits among different classes of persons was

Among mechanics, working and laboring men,	18 years.
“ traders, dealers and merchants,	17 “
“ professional men and gentlemen,	15 “
“ females	14 “

In the general population, the mortality of the first of these classes is much greater than that of the second and third.

“The more regular and active physical exercises to which the members of the first two classes are subject, to a great extent accounts for the difference between them and the third class when intemperate. The causes of the deaths were:—

Diseases of the brain and nervous system, including	
delirium tremens - - - - -	97
Diseases of the respiratory organs - - - - -	82
Liver disease and dropsy - - - - -	83
Cholera, diarrhoea and other diseases of the bowels	11
Diseases of the heart, gout, rheumatism - - - - -	11
“ “ urinary organs - - - - -	6
Fever - - - - -	13
Suicide - - - - -	9
Other diseases - - - - -	45
Total - - - - -	357

Among these were—

Delirium tremens - - - - -	57
Intemperance - - - - -	8
Total - - - - -	65

Of all the deaths of persons 20 years old and upwards, the proportion of those from diseases of the brain was nearly three times as great among the intemperate, and the proportion from dis-

eases of the digestive organs was nearly four times as great as among the general population.

PROPORTION OF THE TOTAL MORTALITY FROM ALL CAUSES.

Causes of Death.	England and Wales.	Intemperate.
Diseases of the brain,	9.710	27.10
Diseases of the digestive organs,	6.240	23.30
Diseases of the respiratory organs,	33.150	22.98
Total three classes,	49.100	73.38

As diseases of the brain and digestive organs produced 50.4 per cent of the mortality of the intemperate, and only 15.93 per cent. in the general population, of course there must have been a smaller proportion from other causes. Hence the mortality from diseases of the respiratory organs was only 23 per cent., while among the people at large it was 33 per cent. of the whole. These include only those who were manifestly intemperate—those who habitually drank beer or spirit—whose nervous systems were frequently under the influence of the stimulus or shaken by the violence of the intoxicating excitement, and who consequently suffered corresponding exhaustion and depression.

All others, those who drink frequently but moderately, suffer less. They have less unnatural disturbance of their balance—less above and less below the average even tenor of healthy life. Nevertheless, they suffer doubtless in a corresponding degree, both in the excess of sickness and in their abbreviation of life.

The effect of alcoholic stimulation is simply and doubtless progressively accumulative. From the first departure from regular nutrition by the due appropriation of the digestive powers, and the just and equal expenditure of the muscular and nervous forces, to the last, which ends in death, there is this gradual and progressive vital exhaustion. Each step, in its due degree, carries the drinker onward and downward, although these steps are so small as to be imperceptible, and the unsuspecting self-indulger makes many steps before he, or even his friends, recognize any departure from fulness of power, or even any progress towards weakness, yet it is none the less certain. The first glass of wine, the first draught of beer, as well as the last, had its due measure of destructive influence and effect. The whole amount of the waste of vital force, although so great and so complete, is but the sum of all the items, every one of which was necessary for, and contributed its due proportion to, the fatal result.

There is a common saying, that it was the last feather that broke the horse's back. This is very true, and has a generic meaning. Yet that last fatal feather weighed no more and was no more necessary to the fatal catastrophe than the first or any of its successors. So the first dram of beer or spirit or of alcohol in any of its forms, and each one that followed it, was, in its due degree, an agent of destruction. It weighed as much, it crushed as much, it performed as great a part in the work of death as the last.

SCURVY IN THE TWENTY-FIFTH ARMY CORPS.

To the Editors of the Boston Medical and Surgical Journal.

It is known to some of your readers that scurvy has prevailed to an unprecedented extent along the Rio Grande river since the 25th Army Corps (colored) have occupied its banks. It commenced its sad work immediately after the troops landed at Brazos Santiago, in the latter part of June, 1865, and intensified until August following, when it began to abate. About nine thousand—one third of the whole command—were seriously affected, and many died. During the voyage, and four to six weeks after, fresh vegetables were rarely seen. On the arrival of fresh vegetables in August the disease rapidly declined, though many were left crippled by its prostrating influence, a part of whom have died and some remain incurable. The white troops in this department were affected by scurvy, though of a milder type, and few died. A few new cases have occurred since August, and it has reappeared in others supposed to be cured. The Medical Director of the 25th Army Corps, E. P. Morong, U. S. Vols., is preparing a detailed account of the malady, which will be of great interest, because of his ample resources for facts connected with it. I have examined the bodies of about fifty who have died at this hospital, and have selected one case from my notes for your JOURNAL, not so much for its special interest, as because it is typical of a large class, which you are at liberty to publish if you think it of sufficient interest to the profession.

CASE No. 27.—*Scurvy*.—Henry Colwell, private, Co. E, 114th U. S. C. T.—This man was attacked with scurvy about the first of July. Gums swelled, bleeding easily. Soon had sores on his legs, arms and sides. July 24th, entered post hospital at Brownsville. Gums spongy, dark livid color; small patches had sloughed. Sores on limbs not healed, discharging some pus. Legs and feet said to feel, when put to the ground, as if it was carpeted with pins, points up. Small appetite; much lassitude; bowels torpid. Patient did not improve much until September, when he appeared to be convalescing rapidly.

Some time in October he “took cold.” Cough came on, and some expectoration. Complained somewhat of chest, but most of “misery around the navel.”

Nov. 1st.—Patient came under my care. Gums pale and shriveled; sores healed. There was tenderness over the entire abdomen, particularly in the umbilical region and along the border of the costal cartilages. Slight dulness over the upper lobes of both lungs. Some cough and frothy sputa; some dyspnoea; tongue slightly coated. Pulse weak—110; skin hot. Bowels loose, but no diarrhoea. Urine normal. R. Expectorants, anodynes; some stimulus and nutritious diet, followed by tonics; mustard externally.

Nov. 18th.—Doing well, apparently improving. Continue treatment.

Nov. 21st.—Not so well; "breast hurts me." Flinches on percussion. Tenderness over liver; pulse weak and small; muco-purulent discharge from nose and lungs. Some dyspnœa and irritative cough. *R.* Pulv. Doveri p. r. n.; stimulus and irritants externally.

23d.—Breathes more easily. Great tenderness over spleen and epigastric region. Mouth moist. Anxious expression.

24th.—Much the same, except almost pulseless during the past twenty-four hours.

25th.—*In articulo mortis* twelve hours. Died.

Sectio cadaveris three hours after death. Face anasarcons, especially the eyelids. Legs completely speckled with black cicatrices; scars of the sores existing in the early stage of the disease; some scars on the sides and arms. These scars are one fourth to one inch in diameter. Considerable adipose, but diminished muscular tissue. Inside of lips and gums, palms of hands and soles of feet, nearly white. Thoracic cavities moist. Upper lobes of both lungs somewhat congested; a dense white deposit around the small bronchial tubes, constituting one third of the parenchyma (where it was found), giving a mottled appearance. Some frothy mucus throughout the lungs, which were otherwise crepitant. *Pericardium* contained six ounces of limpid serum. *Heart* normal, except all the semilunar valves, which were much attenuated; fibrous structure entirely gone. *Liver* yellowish and interspersed, one in every half inch of cubic space, with specks, about the size and color of tomato seeds. It firmly adhered to the diaphragm, between which and the liver was a layer of white, cheesy deposit, about one fourth of an inch thick. *Spleen* about the normal size, but exhibiting an uneven surface, caused by tubercles interspersed through its structure, resembling those in the liver, but larger, some of them red, and some white, and thickest along its lower border. *Pancreas*. On the posterior, lower side the lobules were enlarged, one from half to one inch in diameter, giving a gritty sound on cutting. Structure not much altered in other respects. *Kidneys* flaccid, pale, tough, of uniform color. Pyramids distinct. Interspaces of pyramids quite empty; white tissue in pelvis increased. *Intestines*. Descending colon, sigmoid flexure and rectum small and pale. Diameter of calibre about one inch. The last twelve inches of the ileum, congested and red. The mesenteric glands were enlarged, some of them being one inch in diameter. Similar enlargements existed in the mesocolon.

No other changes of interest were noticed. Head not examined.

IRA PERRY, Assistant Surgeon, 9th U. S. C. T.

Post Hospital, Orange Grove, Brownsville, Texas, Feb. 9th, 1866.

P. S.—This hospital has capacity for 300 patients, but contains only about 200 at present, mostly chronic cases. The weather is

very fine. Roses and oleanders are in blossom. Garden vegetables are scarce, and will not grow without irrigation, but are seen in every stage of growth. One large garden near by, belonging to a Frenchman, contains about ten acres in a good state of cultivation. Cabbages, turnips, beets, radishes, carrots, green peas, &c., can be had any day, in quantities, raised in the open air. The mercury has been at 32° three mornings; and at 30° one morning, the 4th of January. Nine days in this month it has varied from 40° to 83° . I. P.

ERGOT IN PUERPERAL CONVULSIONS.

[Communicated for the Boston Medical and Surgical Journal.]

I NOTICED in the BOSTON MEDICAL AND SURGICAL JOURNAL of Dec. 28th, 1865, an article reported by Dr Collins, as an extract from the records of the Providence Medical Association, with the following prefix, "Puerperal Convulsions—Recovery without Treatment." It seems that the patient, at 8 o'clock, was seized with convulsions; that instrumental delivery was adopted; that profuse hæmorrhage accompanied the removal of the placenta, and that several doses of ergot were given in reference to the hæmorrhage. She had no more convulsions. Full consciousness returned at 4 o'clock, A. M. She made an excellent recovery. I have referred to this case for the following reasons:—Dr. Collins has reported it as a case of Puerperal Convulsions recovering without treatment. In my opinion this patient *received treatment*, and that the most skilful. Ergot was prescribed for the hæmorrhage. It was equally appropriate for the condition giving rise to the convulsions. Dr. C. had in view simply the former; unconsciously, he most successfully addressed the latter. We may thus see how important it is in all cases of recovery from very dangerous attacks of illness, to review the treatment, as sometimes novel valuable inferences and principles are evolved.

Fifty years ago ergot was used by Dr. Wm. Perry, of Exeter, N. H., an eminent practitioner, in cases of puerperal convulsions, and has been prescribed by him in a very extensive practice, with abundant success, up to the present time. It is his main reliance and dependence in these attacks. Ergot has also been, and is now, a favorite remedy of his in hysterical spasms and convulsions, and kindred troubles. A report was introduced by him, he informs me, upon these points, in Thacher's American Modern Practice, in 1820. Dr. Perry had charge of the proof sheets, by Dr. Thacher's request. My own practice corroborates the confidence of Dr. Perry in ergot. I have always prescribed it in cases of puerperal convulsions for the last twenty-six years with equal success. The idea of its use originated with Dr. Perry as a derivative to the uterus from the head. The opinions of Brown-Séquard as to the action of ergot upon the system,

serve to enhance our estimation of it in convulsions. Séquard announces that ergot acts directly as a sedative, allaying congestion of the cerebro-spinal axis. This it undoubtedly does. The successful exhibition of ergot in cerebro-spinal meningitis, after active catharsis, is strikingly in point.

Now when we take into consideration the derivative effects of ergot to the uterus, and its power of lessening cerebro-spinal congestion, we cannot but perceive its peculiar fitness as *the* remedy for puerperal convulsions. It may, in some cases, fail; particularly where the cerebral substance is irreparably damaged early in convulsions. Here all treatment would prove unavailing. I do not hesitate to say, however, that when used judiciously, and in time, its prompt and singular efficiency will satisfy all who may make trial of it, that a want, long felt by the profession, has been supplied.

We are aware of the high regard entertained by some for the German or acid treatment, as eliminating poisonous elements from the blood, by the kidneys and alimentary canal, in puerperal convulsions; also of the great reliance placed upon venesection by other medical men. We believe that these means may all be well under certain circumstances; nevertheless, we feel that ergot fills a place and meets conditions which neither of the other methods can. To say the least, in many, or most cases, the use of acids, tartaric or others, is a measure too late for much good in present convulsions, although, perhaps, appropriate as a caveat or preparatory treatment to parturition in kidney disabilities. Venesection, when used also as a wholesale measure, as the chief reliance, is often inadmissible on account of anæmia, or constitutional delicacy, and is, by no means, so well indicated, either in puerperal convulsions or apoplexy, in these days of lowered vitality as in former years, when antiphlogistic remedies were imperatively demanded.

THEO. H. JEWETT.

South Berwick, Me.

ARMY ITCH.

To the Editors of the Boston Medical and Surgical Journal.

THE opinion so confidently expressed in your issue of March 1, that the "army itch," so called, "is simply scabies, that it is always caused by the ordinary itch insect, and that it readily yields to proper external treatment," leads me to make an inquiry or two for the purpose of ascertaining the ground on which your opinion is founded. If the disease in question be "simply scabies," why is it that the eruption is never, in its first stages, found in the groins, or between the fingers, or in the flexures of the joints? Why is it that the eruption is not "distinctly vesicular" from the beginning? Why is it that the "peculiar itch animaleculæ" have never been found in

any case? Why is it that "the universally admitted remedy for scabies" will not cure it?

You express the opinion that it "is always caused by the ordinary itch insect." Have you found that "insect" in any of the cases you have examined? If so, I have no doubt you have found "scabies," and that it will "readily yield" to the sulphur treatment. If not, I question seriously whether the cases you have examined are the "army itch" at all. Both these diseases have prevailed in this vicinity during the last two years, and they are easily distinguishable the one from the other, but the treatment which will cure the one in a week will have no effect whatever upon the other, save to aggravate it. The cases of scabies are "readily" cured, whilst the "army itch" is altogether a more troublesome customer. Such has been my experience, and such has also been the experience of other practitioners in this vicinity. Hence the queries I have proposed above, by throwing light upon which you will no doubt greatly oblige more of your constant readers than the undersigned.

Essex, Vt., March, 1866.

L. C. BUTLER.

[In replying to the above communication, we shall confine ourselves simply to the inquiries it contains, as it is not our intention to discuss the general subject of scabies at length. The opinion we "so confidently expressed" was based, as was then stated, upon the results of the careful examination of a great many cases in returned soldiers and their families, and upon previous study of the disease.

In answer to the first question, we would state that the position of the efflorescence, so far as we have seen it, does not differ from that of scabies generally. We have found it about the wrist and between the fingers as often as it ever occurs there in adults whose hands are much exposed to cold and remain uncovered, as is the case with soldiers. As to "the groin and flexures of the joints," we should say that it was a rare exception for the eruption of scabies ever to appear in such situations in the first or any other stage, unless the affection were general, when it might affect those as well as all other parts of the body.

Again, as to the character of the eruption, we have seen nothing peculiar about it. It has been, according to our observation, as distinctly "vesicular from the beginning" as scabies ever is, which is very seldom. We do not mean to say that vesicles do not occur in this disease, but that they are no more the characteristic efflorescence than the erythema, papules, pustules and other eczematous appearances which usually accompany it. The only distinctive and positive sign of scabies is the burrow, and this we have observed in a great majority of the cases of army itch we have examined; certainly in as large a proportion as in other adults afflicted with scabies before the war. Having stated this, it may be unnecessary to add in reply to the inquiry, that "the peculiar itch animalcule" has been

found, for where a burrow is, there is a female and her eggs or their remains. We have repeatedly removed it and found it to be, as before stated, the *sarcoptes hominis*. In a case of long standing it is often impossible to discover an undisturbed burrow, but the proportion of such cases among soldiers was no larger than occurs among soldiers in foreign armies or other adults under similar conditions.

It seems, however, that our correspondent makes the success in searching for an insect the test of the character of the disease, for, if we understand his language, he says, if we have found it we have been examining only a case of scabies. It follows, therefore, that the diagnosis must depend largely upon personal skill and experience, for we have known many cases where the burrows have been passed by unnoticed by one physician and have been subsequently detected by another. The former may have regarded the case as army itch, the latter knew it to be scabies, or that they are identical.

With regard to treatment, if by "the usually admitted remedy for scabies" is meant sulphur in some form, we reply that it never fails to cure it, if properly used. That is, it does for army itch what it does for scabies—it eradicates the parasitic element. There remains to be treated the secondary eruption after its exciting cause has been removed. This cannot be cured by sulphur, is often aggravated by it, if employed longer than to perform its office of a parasiticide. It is these secondary phenomena which, presenting some peculiarities not observed in general practice owing to the habits of camp life, have somewhat modified the ordinary appearances and have led some physicians to consider these cases distinct from scabies. We have never failed to cure this form, as well as all others, by a few applications of Vleminckx's solution of sulphide of lime. The eruption then generally disappears of itself, but sometimes requires the treatment applicable to the non-parasitic forms of eczema.—EDS.]

PETTENKOFER'S THEORY OF THE MODE OF PROPAGATION OF CHOLERA.

DR. HERMANN WEBER read before the Epidemiological Society, Dec. 4, 1865, a paper based on Prof. Pettenkofer's last publication on the subject, "*Ueber die Verbreitungsart der Cholera*" (*Zeitschrift für Biologie*; Jahrgang, 1865, p. 323).

With regard to the question of contagiousness, Pettenkofer believes that the disease is propagated by human intercourse, and never without this; not by simple contact with the diseased or their excretions, according to the old theory of contagion, but by means of certain local accessory causes contained in the soil. Temperature, wind, moisture, or dryness of the atmosphere, and elevation of ground, are all not essential for the epidemic occurrence of cholera, although they may, under certain circumstances, exercise great influ-

ence on its course. The only indispensable conditions are, *human intercourse yielding the germ in the excretions of cholera patients, and the soil developing this germ into activity.*

The qualities of the soil considered as necessary for the development of the cholera-germ are—1. That it be porous—i. e., permeable to air and water; 2. That water exist in a certain depth below the surface (ground-water or subsoil-water); and 3. That the soil be to some degree impregnated with the products of organic decomposition, especially those of excrementitious origin.

Respecting the first condition, Pettenkofer, and the members of the Bavarian Commission for the Investigation of Cholera in 1854, have found, without a single exception, that the soil in the towns and villages epidemically affected with cholera was porous; while localities built on impermeable rock were either entirely spared, or, at all events, exhibited only isolated cases. Several apparent exceptions were, on closer examination, found to confirm the law. The well-known researches of Boubée and Fourcault are in accordance with this law.

With regard to the presence of ground-water or subsoil water (landspring—"Grundwasser"—the first stratum of water reached at a certain depth below the surface, between about five and fifty feet), Pettenkofer points to the fact, generally acknowledged, that the cholera spreads with predilection along the course of rivers and in hollow situations; but he regards the water of the soil underneath the habitations as much more important than that of the more or less distant river; and maintains that, as a rule, those localities suffer more from cholera which lie nearer to the level of the ground-water, the distance of which from the surface may be regarded as depending on the first impermeable stratum of the soil. The fall of the impermeable stratum may be parallel to that of the surface, but is more usually not; if the former be greater than the latter, then elevation means greater distance from the ground-water, and probably greater immunity from cholera, but not otherwise. The level of the ground-water in the same locality may vary considerably in the same year and in different years; and on this fluctuation in the varying degree of susceptibility of the locality for the cholera epidemics seems to depend. Under equal circumstances, the rise of the ground-water will cause a greater susceptibility by moistening a higher stratum of the porous soil, which is generally more impregnated with organic matters the nearer it is to the surface. It is the period of the receding of the ground-water from its greatest elevation which is most dangerous. As this occurs usually in July, August, and September, cholera usually makes its greatest ravages at that period; but the unfavorable condition of the soil, may, through unusual circumstances, occur in winter instead of in summer; and cholera epidemics may, as experience shows, occur in the midst of a Russian winter.

With regard to the cholera-germ itself, Pettenkofer assumes it to

be contained in the intestinal excreta of cholera patients, but believes that it cannot produce cholera by itself, but must first undergo some change under the influence of the susceptible soil, and thus become developed. This interchange between the cholera-germ contained in the excreta and the soil may, he suggests, either take place in the soil, and the developed germ may thence be inhaled or otherwise introduced into the body, or it may take place within the human body itself, the product being the active germ.

Pettenkofer adds hygienic suggestions for the prevention of epidemics, based on his views.

Dr. Weber remarked that these views, though not yet altogether proved, were in accordance with the best ascertained facts, and deserved to be tested without loss of time. He added that the observations of position and fluctuations of ground water might lead to other important discoveries, and alluded to the researches of Prof. Buhl, of Munich, according to which the death-rate from typhoid fever, in Munich, was in intimate relation to the varying elevation of the ground-water in that town.—*Med. News*, from *Brit. Med. Jour.*

Bibliographical Notices.

The Malformations, Diseases and Injuries of the Fingers and Toes, and their Surgical Treatment. By THOMAS ANNANDALE, F.R.C.S. Edin., Lecturer on Surgery, Assistant Surgeon to the Edinburgh Royal Infirmary. Philadelphia: J. B. Lippincott & Co. 1866.

To the essay which forms the principal portion of this work the Jacksonian prize was awarded last year by the Council of the Royal College of Surgeons of England. The author in presenting it to the public in its present form has added two new chapters and other matter, so that the contents are arranged as follows:—1. The Congenital Affections. 2. The Inflammatory Affections. 3. The Tumors. 4. The Injuries. 5. The Non-congenital Contractions and Dislocations. 6. The Resections and Amputations of the Digits.

Under these heads nearly all the diseases and abnormal conditions of these important members are considered, although many of them do not receive the notice which their importance demands, or which is given them in the best general works on surgery. In a monograph which is intended to be exhaustive, it is strange that none of the parasitic diseases of the nails are alluded to, although more trivial and rare affections of these appendages are spoken of.

The book is illustrated by many detailed cases, and by a series of lithographic plates, which forms one of its most valuable features. It will be serviceable as a book of reference in the surgeon's library, but will give him little information which may not be procured elsewhere. The book is published in a beautiful form, but although bearing the name of an American house was printed in Edinburgh.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, MARCH 22, 1866.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE U. S. ARMY.

THIS report is the briefest possible statement of the finances and general business of the Medical Department of the Army, but it contains statistics of the greatest interest and of much importance for permanent record. These exhibit in a very striking manner the vast proportions of the terrible war through which the nation has passed, and will stand as a lasting evidence of the fulness of the provision made by the Government for the physical wants of the men who sacrificed so much on the altar of their country. The document, as we have said, is a business paper of the most condensed character, and it is difficult to transcribe portions of it without copying the whole. To select a few of the items:—

We find that the whole sum expended by the department during the year ending June 30th, 1865, was nineteen millions, three hundred and twenty-eight thousand, four hundred and ninety-nine dollars and twenty-three cents (\$19,328,499.23). Among the items included within this expenditure we note a large disbursement for thirteen hundred and eighty-eight (1388) artificial legs, and eleven hundred and twenty-one (1121) artificial arms.

The maximum of hospital provision was attained during the year, and this we find to have reached the enormous proportions of "two hundred and four General Hospitals, with a capacity of (136,894) one hundred and thirty-six thousand eight hundred and ninety-four beds." Of this number one hundred and seventy have been since discontinued, by order from the War Department. The most ample provision was also made for the wants of the armies in the field, and General Sherman's army was met at Savannah by four first class sea-going steamers, thoroughly equipped as hospital transports, with extra stores and supplies for five thousand beds, should it have been found necessary to establish large hospitals upon his line of operations.

The whole number of medical officers of all grades in the army since April, 1861, is twelve thousand one hundred and forty-five (12,145). Of this number (547) five hundred and forty-seven were Surgeons and Assistant Surgeons of Volunteers. Mustered into service (2109) two thousand one hundred and nine Volunteer Regimental Surgeons, and (3882) three thousand eight hundred and eighty-two Volunteer Regimental Assistant Surgeons; employed as Acting Staff Surgeons (75) seventy-five, as Acting Assistant Surgeons (5532) five thousand five hundred and thirty-two. As far as returns have been received, during the war (34) thirty-four officers of the Medical Staff have been killed, or died of wounds received in action, (24) twenty-four wounded, and (188) one hundred and eighty-eight have died from disease or accident incurred in the service; (1) one died in a rebel prison, (6) six of yellow fever. A completed record will increase this number.

The returns of sick and wounded, while they exhibit a sad picture of the vast amount of suffering which the war has brought upon our

people, impress one very forcibly with the immense proportions of the army and the extent of its military operations. These returns show "that of white troops (1,057,423) one million fifty seven thousand four hundred and twenty-three cases have been treated in General Hospitals alone, from 1861 to July 1, 1865, of which the mortality rate was 8 per cent. In addition to the alphabetical registers of dead, not yet fully completed, the records contain (30,000) thirty thousand special reports of the more important forms of surgical injuries, of disease, and of operations. These reports, with statistical data, and a pathological collection numbering (7630) seven thousand six hundred and thirty specimens, furnish a mass of valuable information, which is being rapidly arranged and tabulated as a Medical and Surgical History of the War.

The Surgeon-General refers with emphasis to the absolute protection from the importation of contagious or infectious diseases, afforded by the strict quarantine which was enforced at all the Southern sea-ports and cities held by our troops, and urges it as a most significant fact, in view of the apprehensions felt with regard to the Asiatic cholera. The report concludes with a brief tribute to the ability, courage and zeal displayed throughout the war by the officers of the Medical Department, whose motive impulse he believes to have been almost without exception the purest patriotism and professional honor. We regret the extreme brevity of the document, but the simple facts which it contains are suggestive of volumes.

Death of Dr. Abraham Gould.—At a meeting of the physicians of Lynn, held at the office of Dr. Daniel Perley, on Wednesday afternoon, to take action in regard to the decease of Dr. Abraham Gould, the following resolutions were adopted:—

Whereas, God in his providence has removed from our midst Abraham Gould, M.D., the senior physician of this city—

Resolved, That by this afflictive event the profession is bereft of one about whom its love and pride especially centred, and the community of a safe adviser, and an esteemed and useful citizen.

Resolved, That for his rare professional attainments, and skill in practice, his unwearied devotion to the interests of his patients, the uniform courtesy which marked his intercourse with his associates, his simplicity and kindness of heart, and the ripeness of his many virtues, his memory shall be long cherished by us with the sincerest respect and esteem.

Resolved, That we respectfully tender to his widow and children our heartfelt sympathy in their affliction, and that, as a token of our respect, we will attend the funeral services in a body, wearing the customary badge of mourning.

Resolved, That these resolutions be communicated to the family of the deceased, and to the *Lynn Reporter* and *Boston Medical and Surgical Journal* for publication.

Dr. Gould stood deservedly at the head of the profession in this city, from his age and skill. He was settled in Lynn for more than thirty years, having taken the house and practice of Dr. Gardner upon his decease. His practice soon became very extensive, embracing not only a large clientelle in this city, but also numerous families

in the adjacent towns. For years he never refused a call, riding night and day wherever his services were sought; and was ever ready even during his last sickness to advise those who sought his counsel. This devotion made him the "beloved physician" in many homes.

He was frank and cordial in all his relations with his associates, responding cheerfully to all requests for consultation. He detested all forms of quackery, and ridiculed them unsparingly. With strong faith in the powers of nature, he had little confidence in heroic treatment, and trusted in the self-limitation of most diseases. A joke often served him in place of a pill.

He read much and thought more; and was decided and out-spoken in all his opinions. He was *un bon vivant et bon raconteur*; loved a good horse or dog; was a splendid shot; would ride miles to see a rare vine or good fruit; and in the infrequent moments of freedom from professional cares was the life of the social circle. Such characteristics could not fail to win him hosts of friends.

His popularity was well deserved, and his death leaves a place in the profession which can with difficulty be filled. B. B. B.

Plan for Quarantine for Cholera.—We have received a plan for Quarantine for Cholera, originally addressed to the *Quebec Morning Chronicle*, by W. Marsden, M.D. It is based on the writer's study of the disease during five distinct epidemics, within the last thirty-four years. The basis of the plan is "absolute non-intercourse, for a short period, with persons from abroad suspected of being infected; and a thorough disinfection of personal effects." The paper contains a ground-plan of a quarantine station, with a minute description, together with a strict code of rules for its management. The limit of detention for healthy persons, arriving in infected vessels, is ten days; and they are to be kept quite isolated from the sick.

A new "Inhaler" for Sulphuric Ether.—We have received a description of this instrument from its inventor, F. D. Lente, M.D., of Cold Spring, N. Y., and we are glad to learn, in this way, that our New York brethren are at last turning their attention towards sulphuric ether as a preferable anæsthetic to chloroform. In this instrument the ether is applied on a cone of flannel fitted upon a frame of light wire, and so adjusted as to be kept supplied with ether as occasion may require, without the necessity of removing it from the patient's face during the inhalation. Tieman & Co., of New York, are the manufacturers of the instrument.

American Medical Association.—To Competitors for the Prizes, 1866.
—I. All communications with motto attached, and name with motto in sealed envelope, must be sent to the chairman of the committee, Dr. Austin Flint, 257 4th Avenue, New York City, on or before April 15, 1866. II. If the authorship of an essay is declared to any member of the committee, said essay shall not be considered in competition for the prizes.

AN association has been formed by the dentists of Worcester and its vicinity, in this State, called the Massachusetts Central Dental As-

sociation, and a constitution and by-laws adopted. The officers for the current year are :—*President*, S. P. Miller, Worcester; *1st Vice President*, A. A. Cook, Milford; *2d Vice President*, W. N. Snow, Worcester; *Corresponding Secretary*, O. C. White, Hopkinton; *Recording Secretary*, J. N. Tourtelette, Worcester; *Treasurer*, O. F. Harris, Worcester; *Executive Committee*, H. F. Bishop, Worcester, John McGregory, Southbridge, C. W. Estabrook, Worcester.

WE learn that Dr. Clarkson T. Collins, of Great Barrington, Berkshire Co., Mass., has relinquished his Institute, for a time at least, and is about to make a trip to Fort Benton, in Montana Territory, at the head waters of the Missouri River. E. H. Durfee, Esq., of Leavenworth, Kansas, has invited some fifty gentlemen and several ladies to make the trip with him. They leave Leavenworth on the 15th of this month, and expect to be absent between two and three months.

Presentation.—At the close of the exercises at the Mass. Medical College on Wednesday, March 7th, the graduating class waited upon their popular janitor, Mr. Wm. B. Andrews, and after a few pleasant remarks presented him with a purse of \$50, as a slight token of their esteem.

FROM the Annual Report of the Adjutant-General of Massachusetts we learn that the number of men of all arms furnished to the military and naval service during the war by the State was 159,165. Nearly every town and city is credited with a surplus over all calls. The total amount of bounties paid under the act of Nov. 18, 1863, is \$11,684,957.60. Of 5443 commissioned officers in our regiments and batteries, 265 were killed in battle, 106 died of wounds, 76 died of disease, 3 died in rebel prisons, 3 deserted, 8 were cashiered, and 101 dismissed. Of 106,330 enlisted men, 3278 were killed, 1822 died of wounds, 5596 died of disease, 1840 died in rebel prisons, 8221 deserted, 11,731 were discharged for disability, and 1026 are still only accounted for as missing.

At the Fifth Annual Commencement of the Bellevue Hospital Medical College, New York, on the 24th ult., the degree of M.D. was conferred on 171 graduates.

The Pennsylvania College of Dental Surgery held its Third Annual Commencement on the 1st inst. There were 16 graduates.

The Fourteenth Annual Commencement of the New York Ophthalmic School and Hospital was held on the 23d ult., and diplomas were presented to 11 candidates.

The Chicago Medical College Commencement took place on the 1st inst. The degree of M.D. was conferred by the President on the graduating class, which numbered twenty-two.

Augustus Mason, M.D., has recently been appointed Coroner of the County of Middlesex.

The Metropolitan Board of Health.—The following are its members : Police Commissioners Thomas Acton, James G. Bergen, Joseph S. Bosworth and Benj. F. Manierre, Treasurer; and Drs. J. O. Stone,

W. Parker, and James Crane of Brooklyn; and Dr. John Swinburne, Health Officers. Jackson A. Shultz, Esq., who is also a member, is the President of the Board. Col. E. Clark has been appointed Secretary of the Board; Dr. E. B. Dalton, Sanitary Superintendent; Dr. E. Harris, Registrar of Records; and Col. George Bliss, Jr., Attorney. The officers' salaries have been fixed as follows:—General Superintendent, \$4,000; Assistant Superintendent for Brooklyn, \$2,500; Secretary, \$2,000; Registrar, \$2,500; Sanitary Inspectors, \$1,200.—*New York Medical Record*.

Foreign Intelligence.—M. De Wouves has demonstrated that albumen is present in the urine of all cholera patients some days before the more serious symptoms exhibit themselves. He does not attribute this fact to any disease of the kidneys, but he regards it as an important means of distinguishing between true cholera and diarrhoea.

The cattle disease is still increasing in England, and is spreading in all parts of Scotland. Since vaccination has been recommended as a protection against it, mixtures of croton oil or tartar emetic and colloidion have been sold for vaccine matter to supply the great demand. The question whether the disease is a form of smallpox or not, or whether it may be prevented by vaccination, has not yet been decided. Some interesting microscopic objects have been observed in large quantities in the muscular tissue of affected cattle, which resemble in many respects the encysted forms of entozoa, but as they have been long known to occur in the muscles of other and healthy animals, their connection with the cause of the cattle plague is very improbable. In France the disease was checked by the immediate slaughter of the affected cattle in the district where it appeared, but it was again imported by means of two gazelles from London, and was conveyed to the Jardin des Plantes, where other orders of animals, as the peccary and wild boar, were attacked.

The announcement that a baronetcy had been conferred upon Prof. Simpson gave intense delight to his students. When Sir James made his appearance in his class room yesterday, the students, taking leave to dispense with academical propriety on the auspicious occasion, rose from their seats *en masse*, and cheered vociferously. When the applause had subsided, Sir James briefly acknowledged the demonstration. He said that he could not affect to misunderstand what their congratulations meant; of all congratulations of this kind those of his class were perhaps the most pleasant of any. The honor conferred had come upon him as a complete surprise. He felt almost ashamed that he should have been the individual selected by Her Majesty to receive an honor intended for the whole medical profession; and perhaps that honor ought to be considered by him as all the greater, seeing that it was the first time a baronetcy had ever been given to a Scotch professor, or a practiser of the healing art in Scotland. As it had been given among other things for the advancement in surgery, he would now proceed at once to the surgical subject which was to form the topic of to-day.—*Edinburgh Daily Review*, Jan. 9th.

[We have no disposition to cavil at the distinction thus conferred upon Prof. Simpson; without doubt he is worthy of all the honor bestowed. Most of the notices of this mark of royal favor, however,

as we read them in the English medical journals, mention as the special occasion of the demonstration his boon to humanity of chloroform, by which the pain of surgical operations is annihilated. As if the introduction of the use of chloroform were identical with the discovery of anæsthetics! This is about as sensible as it would have been to bestow honors upon the inventor of some new, *supposed* improvement in vaccination, while the immortal Jenner was left in the shade. The wilful ignorance or the obstinate, stupid prejudice of some of these journalists almost surpasses belief. Thus the *Medical Times and Gazette* says that no "physician since Jenner has conferred so great a boon on mankind as has the discoverer of chloroform," and speaks of operations, such as ovariectomy, which without it "would never have become legitimate surgical proceedings"; and in another place speaks of him as "having discovered the anæsthetic which European experience has shown to be the best"! And all this because it happens to be the most *convenient* anæsthetic, not for the patient, but the operator; and while, during the very month that this Journal talks in this absurd fashion, it records no less than three deaths from the use of chloroform—two by inhalation, and one by its introduction into the stomach. It is fortunate that Sir James Y. Simpson has a sounder basis for surgical fame than that founded on his anæsthetic.—Eps.]

Out of forty-eight candidates, the Paris Imperial Society of Surgery has chosen the following ten foreign correspondents:—Donders, of Utrecht; Longmore, of Netley Hospital; Billoth, of Zurich; Brown-Sequard, of Boston; Holmes, of London; Humphry, of Cambridge; Gurlt, of Berlin; Neudorfer, of Prague; Smith [probably Stephen Smith], of New York; and Emmert, of Bern.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 17th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	41	44	85
Ave. mortality of corresponding weeks for ten years, 1856—1866	38.2	35.7	73.9
Average corrected to increased population	00	00	80.49
Death of persons above 90		0	0

PUBLICATIONS RECEIVED.—The Medical Record, No. 2.—New York Medical Journal for March.—Atlanta Medical and Surgical Journal, Vol. vii., No. 1.—Medical Reporter, St. Louis, No. 1.—Chicago Medical Examiner for March.—Buffalo Medical and Surgical Journal for February.—Cincinnati Lancet and Observer for March.—Richmond Medical Journal for March.—Medical and Surgical Reporter, Nos. 1-10.—Pacific Medical and Surgical Journal for February.—Dental Register for February.—Dental Cosmos for March.—American Journal of Pharmacy for March.—Journal of Materia Medica for March.—Chemist and Druggist for February.—L'Union Médicale, Nos. 21-26.—New York Lancet, Nos. 1, 2, 3.—An Essay on the Life in Nature, and an Extract from an unpublished Essay on Physical Force. By Louis Mackall, M.D., Washington, D. C.—Proceedings of the Boston Society of Natural History, Vol. x., Nos. 7, 8, 9.

DEATHS IN BOSTON for the week ending Saturday noon, March 17th, 85. Males, 41—Females, 44. Accident, 2—apoplexy, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 6—cancer, 1—consumption, 17—convulsions, 2—croup, 3—diphtheria, 1—dropsy of the brain, 4—epilepsy, 1—bilious fever, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 1—homicide, 1—infantile disease, 5—congestion of the lungs, 1—inflammation of the lungs, 8—measles, 2—neuralgia, 1—old age, 3—paralysis, 2—peritonitis, 1—premature birth, 1—smallpox, 1—disease of the spine, 2—unknown, 6.

Under 5 years of age, 36—between 5 and 20 years, 8—between 20 and 40 years, 14—between 40 and 60 years, 13—above 60 years, 14. Born in the United States, 60—Ireland, 17—other places, 8.

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No. 9.

DESCRIPTION OF A DOUBLE FŒTUS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By Prof. JEFFRIES WYMAN, M.D.

THIS fœtus was nine inches in length, had two well-formed heads—the right of which will be called A and the left B—facing each other somewhat obliquely; the two necks met on a level with the shoulders. Seen in front, the trunk and limbs had the usual form, except that the thorax was broad, and the limbs of the two sides were connected with different vertebral columns. There was neither genital nor anal opening, but a small spherical body existed in the place of a penis. From this a double raphé, in the shape of a V, extended backwards, each branch directed towards the coccyx of the same side.

On the hinder face a third symmetrical arm was attached on a level with the normal ones. The hand was in the same plane with the other segments of the limb, viz., from before backwards, the thumb pointing between the heads; it had no palm, but two backs, and each finger had nails on the two sides. The thumb and index finger were connate. The spinal grooves converged downwards, between which a third leg, symmetrical in structure, but somewhat distorted by pressure, arose on a level with the two normal legs, and was bent upwards, so that the toes pointed towards the back. The foot was compound, and provided with two groups of toes, of three each, one right and the other left, and a single large symmetrical toe arose from the middle of the back of the foot. This toe had a nail on each side. If this third leg is brought down to a level with the others, the heel is directed to the space between the other two feet, and thus the legs together form a true tripod.

Skeleton.—A general conception of the plan of the skeleton may be form by supposing two skeletons placed side by side, the arms nearest each other pointing backwards and palm to palm, and the corresponding legs with the toes turned backwards, and then each skeleton cut in a plane extending from the median line in front out-

wards to the right in one, and to the left in the other, through the clavicle, glenoid cavity, lengthwise of the arm and hand, so as to separate the inner and palmar surfaces from the dorsal; also in the same direction through the ribs and acetabulum, lengthwise of the legs, and through the second toe; this done, the portions of the skeletons nearest each other are to be thrown away, and the remaining ones brought together and fused. This, except with reference to a very few unimportant differences of detail, would give us a correct idea of the state of things in the skeleton here described.



It will be unnecessary to describe any other parts than those connected with the third limbs, it being borne in mind that, seen in front, the two crania and vertebral columns, the thorax, pelvis and limbs are formed as usual, except that the parts on the right side of the median line are connected with one head and vertebral column, and that on the left with the other. On the hinder side of the double thorax there is no sternum, except a small portion described below; the

ribs are short, bent strongly downwards, reaching nearly to the pelvis, and are united by their cartilages.

The *arm* is connected with the rest of the skeleton by means of a piece of cartilage, which is attached to the top of the sternum above described, and resembles a manubrium, but has no connection with the ribs; it is directed backwards between the two necks, and supports a symmetrical clavicle, which has the same direction. This has a deep fissure at either end, prolonged into a groove on the body of the bone. It is formed, as it were, of two clavicles so turned that their upper surfaces are pressed against each other and their greater concavities directed upwards. The *scapula* is composed of two bones, united at the glenoid cavity, having an acromion and spine on each side, but no coracoid processes. The bones of the arm, forearm and hand are perfectly symmetrical; all the bones of the last two are arranged in a plane passing through the fœtus from before backwards, the radius in front and the ulna just behind it.

The *pelvis*, as seen behind, has neither pubic nor ischiatic bones, but consists of two ilia, the left one of A and the right of B, united at the acetabulum, which last is on the median line. The *femur* is much compressed laterally, is slightly twisted, but otherwise symmetrical. The *tibia* and *fibula* are in the same plane with the arms, and each has a projecting point of bone, as if they had both been fractured. The tibia is the foremost of the two, and has a right and left tuberosity for the attachment of the right and left *patella*. The tarsal bones were not ossified, but the cartilage of a single os calcis was easily made out. The large and symmetrical toe had three phalanges, showing that it did not correspond with the great toe, contrary to what its great size would lead one to expect.

Muscles.—Only such parts of the muscular system will require notice as are connected with the limbs described above, all the others being normal.

The *left sterno-mastoid* of A and the right of B have the usual attachments to the head, but both are inserted into one and the same symmetrical clavicle and the single sternal piece above mentioned.

The *left sterno-hyoid* and *sterno-thyroid* of A and the right ones of B arise from a common sternum, but are inserted into the usual parts belonging to the corresponding heads of the fœtus.

The two *trapezii*, one arising from each head and vertebral column, are inserted into their respective portions of the compound scapula and clavicle.

The *levator anguli scapulae* and the *rhomboidei* are double.

Neither *pectoralis major* nor *minor* were found.

A *serratus magnus*, on each side, arises from the ribs and is inserted as usual into the base of the scapula on the same side with itself.

A right and left *latissimus dorsi*, *supra* and *infra-spinatus*, *teres major* and *minor*, are all inserted into their respective portions of the

humerus on each side. The *deltoid* arises equally from the two portions of scapula and the end of the compound clavicle; it is inserted symmetrically into the humerus. A *subscapularis* arises from each base of the scapula, but the two are inserted into each other by the union of the tendons, just behind the glenoid cavity.

The *triceps* has two long heads, one arising from the edge of each half of the scapula, and two short heads arising from the side of the humerus, and is inserted as usual into the olecranon.

In the place of the *biceps* and *brachialis* is a single muscle, arising from the humerus by a pointed head on each side of the deltoid, and in this respect resembling the *brachialis*; but like the *biceps*, its tendon is inserted into the radius. There was no long head. Its action would be that of the biceps.

The following muscles were repeated symmetrically on the two sides of this third arm:—

Supinator longus and *S. brevis*.

Extensor carpi radialis longior and *brevior*.

Extensor carpi ulnaris.

Extensor carpi digitorum communis.

Extensor longus pollicis.

Abductor longus.

There were no *flexors* or *pronators*, nor any *extensor proprius* of the index or little fingers.

Below the ribs and their cartilages on this side of the fœtus, some ill-defined muscles occupied the place of the broad muscles of the abdomen, but could not be identified as such.

A *psoas* and *iliacus internus* existed on each side, but both were inserted into the single trochanter minor on the front of the femur.

A *gluteus maximus* arose from each side of the compound ilium, but both were inserted together into the back of the femur.

A single median *gracilis* arose from the symphysis of the ilia, and was inserted into the tibia in front between the two tuberosities.

The extensor muscles of the leg, viz., the *rectus* and *vasti*, were found in double series; the recti arising as usual from the pelvis, and the vasti from the lateral portions of the femur; each series was inserted into a corresponding patella, and by means of their respective ligaments into the right and left tuberosities of the tibia. Thus each set of extensors became a flexor with reference to the other. A *biceps* on each side was inserted into the top of the fibula. Besides this last-mentioned muscle there were no other proper flexors of the leg.

On each side of the tibia was a *tibialis anticus*, but both were inserted into the top of the foot by a common tendon.

An *extensor communis* on each side of the tibia was inserted into the three corresponding toes, and a slip was given from each to the symmetrical toe.

A *peroneus brevis* was inserted to the outer sides of the foot.

A single *gastrocnemius* was present, but no *soleus*.

A *flexor communis longus* on each side was inserted into the toes in the same order as the extensors.

Nerves of the Arm.—A *brachial plexus*, consisting of five pairs of nerves, is given off from each neck, viz., from the left side of A and the right of B, and with the exception of the internal cutaneous nerves, the branches of the two sides keep separate. In the axilla each plexus gives off a *circumflex* and an *external cutaneous* nerve, the latter perforating the *supinator longus* at the lower part of the arm. The two *external cutaneous* nerves unite and descend the back of the arm on the median line. The remaining branches of the brachial plexus pass on each side between the long head of the triceps and the humerus, descend on the sides of the arm, form the *musculo-spiral*, *radial* and *ulnar* nerves, which last two are distributed to the backs of the hand. No median nerve was found.

Nerves of the Leg.—The *sciatic nerve* on each side as it passes from beneath the *glutæus* consists of three portions, two lateral and one median; each of the former, one to the right and the other to the left, passes along the edges of the external vasti and within the lower ends of the bicipites, then over the top of the fibula, forming the *peroneal nerve*, and finally to the back of the foot. The two inner branches, one from each side, unite on the median line near the trochanter, into one, which descends as far as the popliteal space, where it divides into two branches, which descend behind the tibia, one on each side of the fibula and os calcis; the one going to the side of the foot belonging to B is the longest. The two form a right and left plantar nerve.

The *phrenic* nerves on the front side were distributed separately to the diaphragm, descending on each side of the pericardium. The posterior pair united on the hinder face of the pericardium, but their distribution was not traced.

The four *vagus* nerves, two from each head, were kept distinct throughout. The peculiar distribution of the *recurrent* branches will be mentioned further on.

Viscera.—A rather small thymus gland occupied the upper part of the cavity of each half of the thorax, and rose a short distance in the usual place at the base of each neck. Two complete sets of lungs existed, and between them a single pericardium enclosing two distinct hearts. These were entirely distinct from each other, but symmetrically developed, or right and left. A single lower *vena cava* entered the pericardium from below, and then entered each venous auricle by separate branches; the same was true of the upper *vena cava*. The venous auricles of the heart were on adjoining sides, and the arterial auricles on the sides most distant from each other. The aorta of the heart of A descended on the right side of the vertebral column of A, and that of B on the left side of its vertebral column; in this case the right aorta, or that of A, was the one transposed,

while that of B pursued the ordinary course. The innominate artery of A arose from the left side, and that of B from the right side of the arch. The recurrent branches of the vagus were in conformity with this arrangement. The left recurrent of A and the right of B passed beneath the subclavian, while the right of A and the left of B passed beneath the arch of the aorta.

A large opening was found in the diaphragm on the right side, and through this the right portion of the liver and some portions of the intestinal canal had passed.

The *umbilical cord* had one vein and two arterics as usual, the former entering the liver on the median line of the body.

The *liver* was not quite symmetrical in its shape, having been distorted apparently by the forced position of a part of it in the cavity of the thorax. It consists of three portions, a right and left lobe, each of which corresponds with the right lobe of a normal liver, but one of them is reversed. These unite on the middle line and form a third lobe, which corresponds with the left lobe of the two normal livers fused. Each lateral lobe has a bile duct, gall-bladder and common duct; also a portal vein, symmetrically arranged. A *vena cava inferior* passes up on each side in the notch formed by the union of the median and lateral lobes, but the two unite before entering the pericardium.

There were two *stomachs*, with their pyloric portions turned towards each other; the great cul de sac of that belonging to A was in the right hypochondrium, and therefore reversed, while that of B had the usual position and was in the left. A *spleen* was connected with each. The right and left duodenums came together a short distance from the pylorus and formed a lateral communication, but afterwards separated, and though side by side continued distinct nearly to the cœcum, which, as well as the large intestine, was single. The length of the small intestines was 32 inches.

The urinary organs consisted of two compound kidneys and an urinary bladder with a double cavity. Each kidney had its hilus turned from the median line, was strongly bent on itself and had a *renal capsule* at each end, so that there were in all four renal capsules. Each kidney also had two ureters, one of them much larger than the other, one set opening into the upper and the other into the lower cavity of the bladder. This, excepting a constriction near its fundus, had the usual shape; but inwardly the mucous membrane formed a partial partition between the upper and lower portions. The two sets of ureters opened, one just above and the other just below this partition.

There were two pairs of testes—one resting on the kidneys or quite near them, and the other just at the entrance of the internal abdominal ring on the front of the fœtus. Each testis had an epididymis and vas deferens, but in neither case was it traced to its connection with the bladder. There were, however, to be seen just

below the septum of the bladder, mentioned above, three openings, which probably belonged to the vasa deferentia, one pair entering the bladder separately, while the other united and entered through a single opening.

The descriptions of double monsters by many different observers all show that the tendency is to symmetrical development, so that when an organ ordinarily single becomes double the two organs are always right and left. This is well seen in the specimen just described, in the existence of a right and left heart, right and left stomach, spleen, &c. In the cases where organs commonly double are increased in number, we may have either a third organ or two entire ones. In the first case the law of symmetry is manifest in a most striking manner. For all such third organs, if not compound in structure, are divisible into right and left halves, and half from a different fœtus, and repeating each other oppositely. If, however, they are made up of many parts, as a limb, then the individual parts repeat each other in a similar way. In the arm already described, the muscles repeat and balance each other exactly throughout, and the same is mostly true of the legs.

The force, whatever it be, which regulates the distribution of matter in a normal or abnormal embryo, always acts symmetrically, and if we look for anything among known forces, analogous to it, it is to be found, if anywhere, in those known as polar forces. The essential features of polarity, as in symmetry, are antagonism, either of qualities or forms. Studying the subject in the most general manner, there are striking resemblances between the distribution of matter capable of assuming a polar condition and free to move around a magnet, and the distribution of matter around the nervous axis of an embryo.

In every complete series of magnetic curves there are two neutral lines, one extending lengthwise of the magnet, so that the curves formed are divided into right and left; secondly, a transverse one, the particles on each side of which are known as forming the north and south curves. In the right and left series, those which are on one side of the magnet are symmetrical with those on the other, but not in themselves; and in the north and south series those on either side of the transverse neutral line are symmetrical with each other, but not in themselves. Thus we have in the first case something analogous to right and left or bilateral symmetry, and in the second to fore and hind symmetry.

If two magnets are placed parallel to each other and at a distance, then two complete sets of curves are formed in the usual way; but if they are brought so as to be within each other's influence, the magnetic figure now becomes a compound one, the central portion of which consists of the united curves from the two adjoining sides of the magnet, and the particles from either series of curves do not pass beyond the line where the forces of the two magnets are in equilibrium.

If the magnets are now inclined towards each other so as to touch at one end, having a V-shape, then we shall have the particles arranged so as to produce a figure double in front but single behind. The ends which are separated will arrange the particles so as to form a double series of curves, independent of each other; but as the magnets come nearer together, the curves begin to press against each other, and an intermediate symmetrical figure is formed.

The distribution of matter in animals having bilateral symmetry, both in normal and abnormal development, is analogous to the series of distributions just described. In normal development such distribution comprises, 1st, all that we designate as right and left; 2d, all that we designate fore and hind, with reference to the ends of the long axis of the body, or to what has been called fore and hind symmetry. In the fully developed animal this last is less easily recognized than the first, but in the embryo it can be traced without much difficulty.

1st, in the nervous canal, enlarged at either end, the foremost enlargement for the brain, permanent; the hindmost, transitory, except in birds, where it forms the enlargement enclosing the rhomboidal sinus.

2d, the plates of the vertebral column first appear midway, and are then developed in opposite directions, extending it backwards and forwards.

3d, in the intestinal canal, with its allantoidian sac, which is respiratory, antagonizing the pulmonary sac, also respiratory.

4th, in the limbs, which throughout all their earlier stages assume positions strictly antagonistic.

If on one and the same yolk two nervous axes are formed on opposite sides of the yolk, each will distribute the matter under its influence without coming in collision with that of the other, except near the umbilicus, so that two nearly perfect embryos will be formed.

If the two nervous axes are formed near to each other, so that the particles under their influence come in contact, then at the line of contact a series of intermediate organs or limbs, as the case may be, under the influence of the two axes, will be formed, as in the specimen described in this paper.

Furthermore, if the axes are inclined so as to form a V-shaped figure, the two separated ends will have a head more or less complete; but as the two converge, the organs become more or less fused, and at length the hindmost are reduced to the normal type, the intermediate ones having become obsolete.

FROM the Thirty-third Annual Report of the Trustees of the State Lunatic Hospital at Worcester we take the following statistics:—Patients in the Hospital Oct. 1, 1865, 344; admitted during the year, 221; whole number under treatment, 565; discharged recovered, 105; do. improved, 58; do. not improved, 28; died, 33; whole number discharged, 224; number remaining Sept. 30, 1865, 341.

A CASE OF OPIUM POISONING TREATED BY TRACHEOTOMY.

By G. P. HACHENBERG, M.D., New York.

[Communicated for the Boston Medical and Surgical Journal.]

LAST year, when connected with the U. S. A. Hospital, No. 1, Nashville, Tenn., I was sent for one night by a ward surgeon to consult with him in regard to a patient that was supposed to be dying from suffocation. When I first saw the patient I found him in a state of profound coma, with an alarmingly slow, stertorous respiration. There could not have been more than three or four respirations per minute. He breathed as if he had an obstruction in the larynx, at first leading me to suspect œdema of the epiglottis. However, a digital examination dissipated that idea. It was denied by the physician and nurses that the man had got opium or any other medicine. As prompt action was indicated to give the patient immediate relief, I hastily performed the operation of tracheotomy. Immediately after the operation, if it had not been for the soft, quick pulse, I should have considered the man dead. Artificial respiration was resorted to, and in a few minutes he breathed through the opening made in the trachea. In about fifteen minutes after the operation he opened his eyes, raised himself up, and looked around the ward. I now examined more carefully the pupil of the eye, and, from its contracted condition, concluded that the man was poisoned by opium, and thus expressed myself to his physician. Further inquiry was made into the case, and it turned out that he, through some mistake on the part of one of the stewards, had taken half a grain of morphine every half hour until two and a half grains had been taken.

The opening in the trachea was left open for twenty-four hours, and then closed up with adhesive strips. The patient recovered perfectly.

March, 1866.

OVARIAN DISEASE TREATED BY CHLORATE OF POTASS.

By W. CRAIG, L.F.P.S.G., Ayr.

DISEASE and enlargement of the ovary have long resisted all kinds of treatment, and many medicines have been used in attempts to absorb the tumor, but hitherto unavailingly. Extirpation for some time past has been the favorite method of treatment, but it is attended with a large expenditure of life—at an average, nearly every second case. It is very desirable, then, that a mode of treatment could be discovered which would prevent such an expenditure of life, and this usually when the patient is in the most hopeful and interesting period of her existence.

In the following cases the cure has been effected by the administration of chlorate of potass. I could form no opinion regarding the nature of the tumors, other than that they were ovarian.

In his work on the Science and Art of Surgery, Mr. Erichsen states, that "medical means exercise no influence in curing, and but little if any in retarding the progress of ovarian tumor."

Dr. Charles Clay, of St. Mary's Hospital, Manchester, makes the following statement in the *London Medical Review*:—"I conscientiously believe that neither medical treatment, external or internal applications, pressure, nor galvanism, are of the slightest benefit. They neither cure nor palliate the disease. All such attempts, then, are fallacious, and only throw obstacles in the way of any benefit that extirpation of the tumor offers; increasing the difficulties of that operation, if not defeating it altogether."

The treatment in the following cases is an exception to the above statement, as they were treated and cured by means of a very simple medicine, viz., chlorate of potass. It may be that one only of the species into which this disease is divided may be of a nature to be removed by this medicine, and, consequently, the others may remain uninfluenced by it; but, during the life of the patient, unless after the operation, it is not always possible to learn the exact nature of the tumor; but whatever be its character, it can do no harm to the patient to allow her to have the benefit of a trial of this medicine, as it has a favorable action on the functions of the body, irrespective of the action on the tumor.

Chlorate of potass, as is well known, is a medicine that can be used with the utmost freedom. I do not pretend to offer an opinion as to its *modus operandi* in this disease. The circumstance of this salt having in combination a large quantity of oxygen, which is held feebly by the potass, and is let free in the system, may cause it to operate beneficially on the constitution, invigorating and improving the animal functions so as to enable them to throw off these morbid growths.

CASE I.—Miss S., of Ayr, of middle height, sallow complexion, and apparently of sound constitution. The tumor is on the left side, rising out of the iliac region. It is about the size of a child's head of a month old. The patient states that the tumor is sore when pressed, also during defæcation and micturition. She menstruates regularly. It is free in its attachments, and rolls from side to side as the patient turns in bed. It is about five years since she first observed the enlargement, and it was about a year after this when she first applied for medical advice. She had the counsel of many medical men, and took many medicines, but received benefit from none of them. She was under the treatment of one medical man during the twelve months immediately before coming to me. This gentleman used many medicines and numerous external applications, all without any beneficial effect. He then,

with the consent of other medical men, resolved to perform the operation, but he died when preparing for it.

When she came to me I immediately put her upon a saturated solution of chlorate of potass—a dessert-spoonful thrice daily. She stated that she had only taken the medicine two or three weeks when she felt a gradual improvement in her general health. The tumor gradually diminished in bulk till, at the end of ten or twelve months, it disappeared. After the tumor had been so far reduced as not to be felt through the parietes of the abdomen, it could be felt in its greatly reduced size lying close to the uterus. About this time it was about one and a half inch in diameter. Subsequently, the tumor has disappeared completely, with the uneasiness and symptoms depending on its bulk, and she has since continued in her usual health.

CASE II.—Miss C., from London. The attention of this lady was first called to her complaint when taking a bath in June, 1861. At this time she felt a swelling rising from the right side of the pelvis. It was then about the size of an egg, and moved from the side to the middle of the abdomen. There was no pain in the tumor when the body was at rest, but in quick walking and some other forms of bodily exertion, it seemed as if bound by a tight network all over the lower part of the right side. There was frequently a dull pain in the iliac region, and more rarely a sharp, stinging pain; but when at rest, or in ordinary walking, there was no pain. The patient states that her health was very sensibly affected by it. "I lost strength and tone, and became listless." The tumor grew rapidly from June to September, but after this the enlargement was slow in its progress. The tumor till now was always movable, but subsequently it became more fixed.

She came expressly to Scotland to consult an eminent practitioner, and was under his treatment two months of the summer of 1862, and nearly as long in the same season of 1863.

It was in the autumn of 1863 that she consulted me. On examining the tumor, I noted no particular induration of its texture, but its size was about that of a large fist. Her former adviser had used many medicines and appliances with but little effect. The patient was twice cupped and leeches over the tumor, and the skin was twice painted over with a preparation which acted like a blister, and was also painted many times with combinations of iodine. She had tonics from the beginning, and daily a solution of bromide of potass. She also passed an electric current through the tumor for half an hour daily, and this was done during two years. The only effect of the treatment hitherto applied was to make the tumor "more compressed or harder." Immediately on her application to me, I commenced the administration of the saturated solution of chlorate of potass in dessert-spoonfuls thrice daily, and with what effect I shall allow the patient to tell. "I will add, that about three or four

months after I had seen you, and taken the medicine you prescribed, the swelling disappeared as it came, silently and suddenly. I continued your medicine, and the occasional use of the electric battery until a few months ago. I use neither now; and as I said before, I have no swelling; none whatever; none."

I saw this lady in London a short time ago, and I could not discover a vestige of the tumor.

CASE III.—Miss H., from Glasgow, has had for a considerable time a tumor of the left side in the left iliac region. It was about the size of a large fist closed. She had used the chlorate of potass for two or three months before observing much diminution of the tumor, and at this time left off the use of the medicine. She was induced, however, to commence the use of the medicine again, and she states, that during the last few weeks, whilst using a renewed supply, the tumor has become much smaller, and gives less uneasiness.

A fourth case, in Ayr, presented herself with a small tumor in the left iliac region. The tumor had been observed for many months. It was painful, more especially when it was pressed. The size could not be well estimated, as the abdominal parietes were thick. I commenced with the chlorate of potass, but the patient soon became impatient and would not persevere, and has failed to continue the medicine.

So few cases go but a small way to establish the efficacy of this medicine in the cure of ovarian tumors; but, in view of the declaration of experienced and practical men who have seen much of this disease, and who maintain that medical means exercise no influence in curing, and but little in retarding the progress of ovarian tumors, it is right to produce facts, in however small numbers, when they show that medicine is not so inefficacious as represented by some writers on this subject.

It may be admitted, that before publishing my experience of the efficacy of chlorate of potass in the treatment of ovarian disease, I ought to have been able to present a larger number of successful cases; but in a small town, among a rural population, there is less chance of meeting a satisfactory number of cases than in the crowds of large cities.

Though the number of examples be small, the success attending the treatment ought to encourage a trial of a medicine that can be used with the greatest freedom, and could always be tried—provided there is no contra-indication—before having recourse to such a formidable operation as that of ovariotomy.—*Edinburgh Medical Journal.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

DEC. 11th, 1865.—*Tumor resembling the Female Mamma.*—Dr. PETER PINEO, late Medical Inspector, U. S. Army, who was present by invitation, related the following case:—In April, 1865, a negro, 40 years of age, presented himself for examination as a recruit, in Charleston, S. C. On being stripped, his physical condition was found to be perfect, with the exception of a round, flattish protuberance on the anterior aspect of the right thigh, at about the juncture of the upper and middle thirds. This protuberance was about $4\frac{1}{2}$ inches in diameter, had a glandular feeling, and an elevation in the middle, like a nipple, with a depression at its point, and resembled strongly a female mamma. The negro said it had always been there, and from his account it seemed to have been congenital. The resemblance to a female mamma was so great that the examining surgeon called the attention of Dr. Pineo to it. Dr. P. showed a drawing of the tumor.

JAN. 22d, 1866.—*Warty Vegetations in Fauces, on Epiglottis and in Larynx.*—Dr. H. K. OLIVER showed the specimen and described it. The account of the case was furnished by Dr. F. H. Gray, in whose practice it occurred.

Master W., aged 5 years. In the latter part of July, 1864, patient swallowed a small quantity of aqua ammonia, from which he suffered in his throat severely for twenty-four hours. He was seen by his physician, on the day following the accident, and was as comfortable as usual, excepting that his voice was indistinct. All trouble soon passed away.

Eight months afterwards, the boy complained of slight cough, and was unable to speak above a whisper. Simple remedies were advised, but without relief to these symptoms.

In July, 1865, these symptoms continuing with occasional vomiting, a portion of the right tonsil was removed, but without relief. On examination of the throat, the tonsil was adherent to the uvula throughout its whole length. At this time the child was greatly troubled at night with urgent dyspnœa. The uvula and tonsil were removed with marked relief, and the boy seemed in a fair way to do well but for his voice, which was still a whisper. Some little time before death dyspnœa returned, and he died after considerable suffering. Dr. Cabot saw the child some months since, and wished to perform tracheotomy for its relief, but the parents would not consent to it.

In the specimen the growths resembled the vegetations sometimes occurring in persons who have been affected with gonorrhœa and in pregnant women. They varied in size from a pin's head to a pea, some of them being pedunculated. They were situated in great numbers over the back of the tongue, upon the tonsil, upon the lingual face of the epiglottis and upon the laryngeal face of the same. The vocal cords, the ventricles of the larynx and the false cords were entirely hidden by a solid mass of the same kind of growths, springing from each side and meeting at the middle, so that water did not pass from the larynx into the trachea, nor, when the parts were reversed,

from the trachea into the larynx. Below the vocal cords there were no traces of the disease whatever. According to the report of Dr. Ellis, the growths consisted wholly of epithelium.

JAN. 22d.—In regard to the case of *Tumor of the Larynx* reported by Dr. Cabot, printed in the Appendix, Dr. OLIVER said that although this case had presented many obstacles to laryngoscopy, he had nevertheless on several occasions had a complete view of the growth described by Dr. Cabot, and at no time did it present the raspberry-look as seen at the operation. The appearance was that of a smooth, shining tumor filling up the greater part of the larynx, the membrane covering it being continuous with that of the ary-epiglottidean membrane. Neither the cartilages of Wrisberg nor those of Santorini were to be distinguished. The mucous membrane passed from the posterior part of the larynx directly over these cartilages on to the superior surface of the tumor, so that the cartilages mentioned were wholly buried from sight. On one or two occasions a yellowish secretion was seen on the anterior part of the growth, where it seemed to touch the thyroid cartilage at its angle. After the removal of the tracheotomy-tube, the opening in the larynx—the artificial glottis—was of ample size, but irregular in shape. No vocal cord or false cord could be seen. The arytaeno-epiglottidean membrane and the arytenoid commissure were re-placed by a jagged edge, with no sign of the proper cartilages; while on each lateral surface, interiorly, there were also small jagged prominences. Dr. Oliver said that the growth seemed to be similar to those epithelial tumors described by numerous writers on laryngeal growths.

FEB. 12th.—*Penetration of the Eye by a Foreign Body, and its Discovery at the Fundus of the Globe by means of the Ophthalmoscope.*—Dr. WILLIAMS gave an account of a lad of 18, who presented himself at the Ophthalmic Clinique of the City Hospital on the 7th of February, with the statement that in cutting a piece of lead with a knife, twenty-four hours previously, something had got into his right eye. As, on examination, a small cicatrix was seen in the cornea, and behind this a perforation of the iris, it was probable that a small fragment, projected with force, must have entered the eye, and on further inquiry it was ascertained that in cutting the lead he struck the back of the knife with a hammer, undoubtedly knocking off a bit of steel from one of these tools.

With the ophthalmoscope the missile could be traced through the outer margin of the crystalline lens, where its course was marked by a slight opacity. The optic disc and most of the retinal surface presented a healthy aspect, but, on examining the region of the macula lutea, the foreign body could be seen with perfect distinctness, implanted in the retina and surrounded by a narrow white circle. Vision was still but very slightly affected.

The patient was advised to submit to the immediate removal of the foreign body by means of the small canula-forceps; as, if he did not thus preserve useful vision, which would of course be doubtful, he would be spared the long-continued suffering attending the gradual elimination of the bit of steel, which is almost certain to take place—would avoid the danger of sympathetic inflammation of the other eye, which may be excited during the process of expulsion—and would doubtless have a better looking eye than will remain after the steel is expelled by the

efforts of Nature. But to this operation he demurred, unwilling to believe that so dark a future could be anticipated for the injured eye. He was therefore advised to keep the pupil dilated, that the iris might not become irritated by pressure from the injured lens as it becomes swollen in the transformation to traumatic cataract, and to report himself in case of the occurrence of any new symptoms, that all possible precautions may be taken against sympathetic inflammation of the opposite eye.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 29, 1866.

TRICHINA DISEASE.

So much interest is at present manifested by the public and the press in trichinous disease, and the accounts of the panic which prevails in the pork-eating districts of Europe excited by the recent occurrence of several epidemics, and so little is generally known of its nature here, even by physicians, that we shall again ask the attention of our readers to the subject, although it has been already presented to their notice several times in our pages.* Before giving an account, however, of some of the recent investigations of observers who have made a special study of the natural history of the trichina, we will again briefly describe its nature and the disease it produces.

In the first place, it is in no way connected with measly pork. Measles in swine is the encysted stage, scolex or inverted head, of *tænia solium*. Measly flesh being eaten by man, the scolices, unless previously destroyed by cooking, escape from their sacs within the stomach, and attach themselves by their armed heads to the intestinal walls. From the head, already mature, are developed the joints which make up the body of the tapeworm. The first formed or oldest of the joints, or proglottides, when sexually ripe escape from the intestinal canal of their host, and being eaten by swine the ova they contain are set free. During digestion the egg shells are dissolved, and the embryos find their way into the tissues of their new host to be again converted into encysted scolices or measly pork. In this stage the tapeworm is called *cysticercus cellulosæ*.

The trichina spiralis, on the other hand, does not belong to this order Cestoidea or encysted worms, but to the Nematoidea or round worms (the ascarides and oxyurides), and its development is much less complicated. Trichinous pork contains the young worms either free or coiled up and enclosed in capsules within the muscular tissue, according to the length of time they have remained there. In shape they resemble the adult, but are smaller and sexually immature. Being eaten by man, unless previously destroyed by cooking or other process, they pass the stomach uninjured and escape from their capsules if encysted. In the intestinal canal they grow rapidly and become mature in a few days. Impregnation immediately follows, and the young begin to

* See Vol. Lxx., pp. 275 and 305, and Vol. Lxxi., p. 381.

leave the female within a week, in the form of minute transparent worms. They may continue to escape for weeks, and in immense numbers. They bore at once into the intestinal cells, and penetrate to nearly all parts of the muscular system. They feed upon the muscular tissue, and after an indefinite period coil themselves up and are enclosed in a sac which in time becomes cretaceous. In this quiescent stage they may remain alive for years, and after the death of their host may become mature in turn by entering the intestinal canal of some other host.

The symptoms caused by their presence vary according to the number eaten and the stage of development. At first nausea, loss of appetite and intestinal irritation. Afterwards debility, fever, œdema of the face, movements of limbs painful and sensitiveness of muscles on pressure. Lastly, great inflammation of intestines with bloody stools, increased muscular pains, partial paralysis of muscles of deglutition, speech and respiration, and finally death from exhaustion. If only a small quantity of the trichinous pork be eaten, the symptoms will be mild, and in all cases they will disappear when the worms have become quiescent or encysted in the muscular tissue.

The history of the trichina is interesting, and may be briefly told as follows. Many years ago it was found in the muscles of man after death, and described by Owen. Subsequently Leidy found it, also encysted, in the flesh of the hog, and since then it has often been noticed in dissecting-room subjects, giving a sanded aspect to the red muscular tissue. It was always considered harmless, however, and in 1855 Küchenmeister published a theory that it was only the immature form of *Tricocephalus dispar*, a minute thread-like intestinal worm. Experiments conducted by Virchow and Lenckart, however, in 1859, by feeding animals with trichinous flesh, demonstrated the error of this opinion, and also the important facts that the encysted trichinæ were set free in the intestinal canal, there to become mature; that living embryos were developed within them, which escaped to wander in the muscular tissues of the same host, or might be transferred with the intestinal contents to another animal to become in turn the encysted form; and that the cysts were formed within and consisted of the thickened sarcolemma of the primitive muscular fibres, not, as had been supposed by some observers, within the capillary tubes.

These results pointed unmistakably to the manner in which man also became infected, but they were still considered of no pathological consequence until early in 1860, when a servant girl died in the hospital at Dresden after a month's sickness, with symptoms like those above mentioned, and on examination after death Zenker found the muscular system filled with free and moving trichinæ. He concluded that it was a case of fresh infection, and that the worms had been the cause of her death. A microscopic examination of the contents of the intestine revealed the presence of numerous mature trichinæ of both sexes, the females still containing living embryos. Portions of the muscular tissue of the girl were sent to Virchow and others interested in the subject. The former administered it to a rabbit, which was killed by the wandering of the young brood set free within its intestine; the others, as well as Zenker, fed dogs with the same, but the results corresponded with those previously and subsequently obtained, viz., that trichina undergoes only a partial development within their intes-

tinal canal, does not long remain there, and does not wander into their muscular system. It remained to be ascertained where the girl obtained the trichinæ which caused her death. She was taken sick after Christmas in the country where it was the custom to kill swine for the feast of the season, and Zenker, knowing the frequent occurrence of trichinæ in these animals, concluded that some connection would be found between the disease and the meat. On visiting the place he found that the farmer with whom she had lived had killed a hog on Dec. 31st, and that the ham and sausages which still remained of it contained numerous encysted trichinæ. He found, also, that the farmer and his wife and the butcher had all been ill with symptoms similar, though milder, to those the girl had exhibited.

This case, so complete in itself, not only established the connection between trichina in the hog and in man, but demonstrated the existence of an unsuspected and frightful disease, and explained much that had been mysterious in former cases of death from sausage-poison and other unknown causes. It was followed by other epidemics of a fatal character, the latest and worst of which is still carrying off its victims at Hiedersleben, so that a panic has spread over Europe, and the hog seems doomed to take his proper position as an unclean beast. Scientific commissions have been appointed by many governments to study the disease, and the natural history of this little worm has become of national and political importance, and has received the attention of some of the best scientific observers of the day.

It being established that man gets the disease from swine, these investigations have been directed to the source of infection in the latter animals. Many immature round worms have been found in animals and accused of being trichinæ, but more careful examinations and experiments have subsequently proved their innocence. Among these are to be mentioned worms found in moles, frogs, insects and angle-worms, upon which swine are known to feed. Even vegetables have been laid under suspicion, and particularly a little nematoid worm which infests the beet-root, but this too was found to be zoologically distinct. Statements have also been made that beef is not free from trichinæ, but there is no ground whatever for such reports, and the same may be said of the flesh of birds like ducks, geese and pigeons, which might receive infection by means of the intestinal discharges of trichinous animals, for it has been found impossible to reproduce them by artificial feeding.

It may be safely stated that the only natural occurrence of trichinæ is practically limited to the hog, although they may be accidentally developed in the cat and rat, and artificially in the rabbit. There can also be little doubt that the disease is kept up between the two former precisely as the tape worm continues to exist. Man, we know, gets trichinosis by eating trichinous pork, but how can the hog, who does not eat man, become in turn infected? He cannot eat the eggs of trichinæ as he does those of *tænia*, because there are none to eat, that is, the worm is viviparous and the young, we know, remain within the human host. Without doubt, however, many of the mature females escape from the intestines after impregnation, and in this way are eaten by swine. It is well known that when the diarrhœa is severe during the first stages of an attack of the disease the patient is not so severely affected as others who have partaken of the same

pork, and this is due to the escape of the parasite before the young are born in great quantity, and such persons, not sick enough to keep the house, and discharging their excrements at large, are the probable sources of infection in swine. It has, in fact, been noticed by Virchow, that epidemics succeed each other at regular intervals. After infecting themselves in the way just described, the swine are not again killed until the next general slaughtering season comes, when another follows, to be succeeded by others after a similar interval. It may also be possible that portions of trichinous flesh may pass through the human intestine unchanged and thus be eaten by other animals, or that rats may eat it originally, or in the dejections of man, and be subsequently eaten themselves by swine. We have seen that dogs cannot be made trichinous by eating diseased flesh, but they may discharge the contents of their intestines containing partially developed trichinæ where swine have access to them; and lastly, it is not impossible that swine may infect each other by intestinal trichinæ alone.

It is a question of importance how long this entozoon may retain its vitality in the tissues, and be capable of transmitting the disease to man. Among the cases which have been carefully investigated in Germany as bearing upon this point, is one communicated to Virchow's *Archiv*, which possesses peculiar interest as having originated in this country. In 1861 a woman was admitted to the Altona hospital with a cancer of the breast of twelve years' standing, which was removed, and, strange to say, on microscopic inspection, found to contain a considerable number of trichinæ. This led to an inquiry, which gave the following information. In 1856 she was residing in the city of Davenport, Iowa, with her brother, and was taken suddenly ill with gastric and rheumatic symptoms, together with œdema and partial paralysis. Convalescence was very protracted, and she never recovered the free use of her fingers at the piano. Her brother was attacked with similar symptoms at the same time, but they were much less severe. After her death at the hospital in 1864, many of the muscles were found to contain encysted trichinæ, the capsules being very cretaceous. Portions of this tissue were given to a cat which was kept in confinement, and after its death on the sixteenth day its muscular system was found crowded with free trichinæ of various sizes, all within the enlarged tubes of the sarcolemma. There seems to be no doubt that this was a case in which the trichinæ remained alive seven or eight years, and were capable of reproducing the disease after this long hybernation. Virchow relates another case still more remarkable, where the worms were living after 13½ years, and on being removed from their cretaceous prisons moved actively when placed in the sun, and were found capable of reproduction within the intestinal canal of a rabbit. As to the period at which the capsules are formed within the sarcolemma, or when the cretaceous formation begins, nothing definite is known.

Trichinosis is no new disease. It existed, as the above cases show, many years ago, and it is undoubtedly as old as the habit of pork eating; we are only beginning to recognize it. In certain parts of Europe where raw pork is largely eaten in the form of ham and sausages, and where the habits of swine and their keepers are not very unlike, there is ample opportunity afforded for its spread and frequent occurrence. The most careful attention, however, will not prevent

the accidental infection of these animals, as the history of some of the epidemics illustrates. Unfortunately, the disease is latent in them, producing no symptoms which cause its presence to be suspected, and the appearances of the flesh after death are not such as to attract attention. It can only be recognized by its effect on those who unwarily eat it, or by microscopic examination.

In some parts of Germany government obliges all pork to be inspected by an appointed person, before it is sold, and even the butchers are forming associations among themselves for the same purpose, and are learning the use of the microscope, the present horror of pork affording them leisure for such studies. The inspection, however, should never be entrusted to an incompetent observer, and should be thoroughly performed. One of the latest cases of the disease in Prussia was produced by eating flesh which had passed examination, and subsequent investigation showed that only a portion of the shoulder had been sent for examination, and that other parts were abundantly infected. It has been found that the muscles contain most trichinæ nearest their attachments, and that in ham they occur in greatest numbers in these parts about the lower leg. Every hog should be examined in at least five places before it can be pronounced clean, for the parasites are sometimes distributed in the most unequal manner. In Brunswick out of 20,000 swine examined but two were found to be trichinous, but it will be remembered that each of the two great epidemics in Germany were caused by eating the flesh of one animal alone, but these two animals caused the sickness of 500, and the death of over one hundred persons.

Foreign Intelligence.—The cholera conference opened at Constantinople, on Feb. 13th, with an address from Aali Pasha. The regular sittings were to begin on the Monday after the Bairam.

The death of Prof. Brande, the well-known chemist, is announced. He occupied during his life the positions of Professor of Chemistry at the Royal Institution, Superintendent of the Mint and Editor of the Quarterly Journal of Science. He was the author of several well-known scientific works.

The failure of vaccination to prevent the spread of Rinderpest in England has proved the falsity of the theory concerning its variolous nature. Physicians and veterinary surgeons are entirely unable to control it, and the pole-axe and isolation are the only means employed with success against it.

Epizootia among the Sparrows.—The *Union Médicale*, after referring to the epidemic among the gallinaceous birds which it had recorded some time previously, speaks of a disease now prevailing among the sparrows and finches. These birds are very peculiarly affected, and fly about in close proximity to human beings without the least apparent fear. This is found to be caused by a loss of sight almost complete, produced by a thick, whitish membrane spread over the surface of the eye, which almost conceals the pupil. Often the crystalline lens is completely opaque, constituting a true cataract. The poor animals actually starve to death for want of sight.

Trichinosis.—This disease has not as yet appeared in France, but in order to be forearmed, a commission, consisting of Dr. Delpech, of Paris, and Professor Reynal, of the Veterinary School at Alfort—the first appointed by the Academy of Medicine, and the latter by the Minister of Agriculture—has been directed to proceed to Germany to study this disease in all its phases. On the way they will stop for a time in Belgium, where the disease has made its appearance at Huy.

DR. FISCHWEILER, a learned German physician, who died at the age of 109 years, ascribes his longevity to a constant habit of sleeping with his head to the north and his feet to the south. The same custom is said to prevent headache in those subject to it.

DR. EVANS, the celebrated American dentist in Paris, has just been made an officer of the French Legion of Honor.

The graduating class in the St. Louis Medical College, at the close of the late winter session, numbered fifty.

The St. Louis College of Pharmacy closed its first session on the 28th ult., with a class which is stated to have exceeded in numbers the expectations of the most sanguine.

The Humboldt Medical College, a new institution in St. Louis, commenced its summer course of instruction on the 5th inst.

The graduates of the Jefferson Medical College, Philadelphia, numbered 165 at the late commencement; and of the University Medical School, 162.

The number of graduates at the New York College of Physicians and Surgeons was 112.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 24th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	38	40	78
Ave. mortality of corresponding weeks for ten years, 1856—1866	44.1	38.6	68.27
Average corrected to increased population	00	00	88.84
Death of persons above 90		0	0

BOOKS AND PAMPHLETS RECEIVED.—Medical Electricity, embracing Electro-Physiology and Electricity as a Therapeutic, with special reference to Practical Medicine, &c. By Alfred C. Garratt, M.D., M.M.S.S., &c. Third Edition. Philadelphia: J. B. Lippincott & Co.—Second Annual Report of the Trustees of the City Hospital, Boston.

MARRIED.—In Rochester, N. H., Dr. G. Newton Thompson, of this city, to Miss Lydia Pray, of Rochester.

DIED.—In Philadelphia, fatally injured by an accident in the street, in his 67th year, William Mount, M.D., one of the leading physicians of Cincinnati, Ohio, and formerly Superintendent of the County Lunatic Asylum there.

DEATHS IN BOSTON for the week ending Saturday noon, March 24th, 78. Males, 38—Females, 40. Accident, 6—disease of the brain, 5—bronchitis, 1—cholera infantum, 1—consumption, 15—convulsions, 6—croup, 1—cyanosis, 1—diarrhœa, 1—dropsy, 2—dropsy of the brain, 2—dyspepsia, 1—gangrene, 1—hæmatemesis, 1—disease of the heart, 2—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 9—marasmus, 2—measles, 1—old age, 1—paralysis, 1—puerperal disease, 4—small-pox, 2—teething, 1—tumor of the hip, 1—unknown, 4—rupture of the uterus, 1—whooping cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 8—between 20 and 40 years, 22—between 40 and 60 years, 4—above 60 years, 12. Born in the United States, 62—Ireland, 15—other places, 1.

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No. 10.

PATHOLOGICAL POLARITY, OR WHAT HAS BEEN CALLED SYMMETRY IN DISEASE.

By BURT G. WILDER, S.B., M.D.

[Read before the Boylston Medical Society Jan. 20th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By the term polarity is to be understood a law of philosophical anatomy which has been but little studied in this country, and which, under the name of symmetry, whether lateral or longitudinal (antero-posterior), defines a somewhat mysterious and peculiar relation between *regions, parts* or *organs* which lie on *opposite sides* of a *longitudinal* or *lateral median plane*.

This relation may take the form of a close anatomical resemblance with little or no difference in function, as between the right and left sides, or it may be obscured by a very great difference in form and a still greater dissimilarity of function, as between the anterior and posterior regions of the vertebrate body. The former is generally evident and really needs no confirmation, but in the latter case our belief in the conclusions which have been reached only after careful comparisons among the simpler animals is materially strengthened by the effects of certain morbid changes which, in their situation, their coincidence or their sequence, seem to conform to the above-mentioned law.

Such affections have been termed "sympathetic," and sometimes "metastatic," and have been supposed to depend upon some nervous or vascular connection between the parts in which they are manifested; doubtless some of them are due merely to the anatomical proximity of parts or organs, to a relation of *contiguity*, others to the identity and *continuity* of tissue, and others again to some *physiological* or *functional* connection—what is properly called *sympathy*.

But there are some affections which, whether organic or functional, can be explained only by assuming the existence of another relation, which is neither of contiguity nor of continuity, nor necessarily of functional association, but which implies a certain homology between parts, a more or less complete identity of structure, similar to that which exists between corresponding parts in different animals; as,

for instance, between the arm of man, the flipper of the seal and the wing of the bird; it is, as said above, that morphological relation between two parts occupying similar positions, and sometimes, though by no means necessarily, performing similar functions upon opposite sides or ends of the body. It is not included in either of the two kinds of homology generally recognized, namely, the *special* homology between the corresponding parts in different animals, and the *serial* homology between parts which are in a *serial* or *successive* relation, as the bodies or the spinous processes of two vertebræ, or the segments of a worm or insect; this latter really depends upon what may almost be called a continuity of tissue, and implies only a general homology; but there must be something more than these two kinds of homology to account for a disease attacking at the same time or in a similar manner parts at the opposite ends of a lateral axis, as the two hands, the two knees, the two sides of a pelvis,* and also, though less frequently, corresponding parts in the anterior and posterior extremities, as the elbows and the knees, the back of the arm and the front of the thigh, the palms and the soles.

For this morphological relation, I have proposed the term *polarity*, or *polar homology*,† and this polarity may be lateral or longitudinal, and perhaps also vertical.

The adjective *polar*, and all possible derivatives therefrom, occur constantly in the Physio-philosophy of Oken, but after the section on Crystallography, where of course polarity is a well-understood term, Oken's general and apparently indiscriminate use of the word in connection with the position, the activities, the function of every description of animal, plant and organ, forces us to the conclusion that either his own ideas are not clear as to its precise significance, or else that they are too profound for ordinary comprehension. At any rate, there are some passages where polarity and symmetry appear to be used as if synonymous, while there are others in which their meaning is very different. Of the former examples are paragraphs 2093, 2100, 2103, 2114; and of the latter, paragraphs 2107, 2119, 2752, 4-6-8, 2854, &c.

I will first speak of the manner in which this subject originally occurred to me, next of what has been written thereon by others, then at some length of the anatomical features of the law of polarity, and lastly of the pathological evidences of its existence.

During the summer of 1863, while endeavoring to work out the details of the great anatomical law then called "antero-posterior symmetry," which had been suggested to me by Prof. Jeffries Wyman, and to which some very plain hints are contained in Oken's Physio-philosophy, it occurred to me that some confirmation of the anatomical idea might be derived from the phenomena of pathology,

* See Paget's Surgical Pathology, vol. i. p. 19.

† Memoir on Morphology and Teleology, p. 9. (Memoirs Boston Society of Natural History, vol. i. No. 1.)

and this more especially with reference to the translation of inflammation, the metastasis so commonly observed between certain organs at opposite ends of the body, viz., the testes and the parotid glands.

On page 19 of the memoir above referred to, the following passage occurs :—

“ Pathology seems to indicate that the testes and the parotid glands are longitudinally homologous; for inflammation of the former is very prone to invade the latter, by what is called metastasis, but which in this case may be a physiological indication of a morphological relation otherwise obscure. So, also, are connected the diseases and their remedies, of the genito-urinary and respiratory passages, and both these cases, with that of the irritation of the nostrils sympathetic with the presence of worms in the rectum, are similar to what so often happens between parts which are laterally homologous.”

Believing that in pathology would be found a valuable auxiliary to the conclusions which had been already attained through anatomy alone, it was my intention at some future time to investigate the subject more thoroughly; but in April, 1864, I received from Dr. Norton Folsom the manuscript of a thesis on Anatomical Symmetry, written at his graduation from the Massachusetts Medical College in 1863, in which, after recapitulating those views of the subject which were commonly received by the students of Prof. Wyman, he referred to the paper of Dr. William Budd, on the “Symmetry of Disease,” in vol. xxv. of the *Medico-Chirurgical Transactions*, where are reported cases of disease, especially those of the arteries and the skin, affecting corresponding parts on the two sides of the body, and even in some instances on the arms and the legs.

In the same volume is a paper by Mr. James Paget, M.R.C.S., on the “Relation between the Symmetry and the Diseases of the Body,” which, however, treats only of the more common examples—those, viz., of a similar affection upon the right and left sides; but the same author, in his *Surgical Pathology*,* after referring to his own previous paper and that of Dr. Budd, says:—“To conclude, these symmetrical diseases with seats of election, prove—

“1st. That in the same person the only parts of any tissue which are identical in composition are, or may be, first, those which occupy symmetrical positions on opposite sides of the body; and next, those which are in serial homology.†

“2d. That the portions of the body in different individuals which are identical, or most nearly so, in composition, are those in exactly corresponding positions.

* Vol. i. page 2.

† Owen (Report of Homologies on the Vertebrate Skeleton, to British Association for Advancement of Science for 1846) does not discriminate between serial and polar homology, the former existing only between parts on the *same* side of the lateral or longitudinal plane, and the latter between parts on opposite sides of such a plane.

"3d. That even in different individuals the specific morbid materials on which many diseases of the blood depend, are of identical composition."

So far as I know, these two distinguished authors are the only ones who have discussed this very interesting subject, but they have presented so many examples of disease affecting the two sides of the body and the upper and lower extremities, that, in the opinion of Dr. Budd,* "since this fact is common to such a large number of diseases, and to diseases varying so widely in the aspect of their lesions, in the nature of the textures involved and in many other important respects, it must necessarily be a fact of a high order, and one which is justly entitled to the rank of a law."

On the following page, he says:—"The occurrence of deformities from disease in the corresponding parts of the upper and lower limbs gives curious and undeniable sanction for those speculative views of organic analogies which have long been entertained by a certain class of anatomists."

Herein he doubtless refers to Oken and others of the so-called transcendental school of anatomy; and to those of us who believe that, in spite of many and almost inexcusable errors, such deserve the name of philosophical anatomists, and that under the apparently vague and dreamy language of some of them, are to be discerned suggestions to a really sound philosophy, it is gratifying to find practical and thoroughly common-sense men like Budd and Paget able to see in any facts a confirmation of the views entertained by them.

I pass now to the proper subject of this essay, viz., the Pathological evidences of the existence of this anatomical law of polarity, considering first those of external form and regional anatomy, and then in turn the systems, organs and viscera.

In order to understand how any kind of symmetrical, or, as I prefer to call it, polar relation can be predicated of parts apparently so unlike in form and function as the anterior and posterior ends of the vertebrate body;† the head and tail, or, more properly, the pelvis, we must first appreciate the essential distinction between the two principles, morphology and teleology, which have been occasionally employed in this paper. For an extended consideration of them I may refer to my memoir on the subject, and will merely say now that morphology refers to the essential structure or plan of an animal or organ, irrespective of its mere external shape or figure, which is modified according to the particular function which it is to perform,

* Op. cit., page 102.

† That some degree of similarity between the two antagonistic regions under consideration has been observed by both the wise and the ignorant, I may call attention on the one hand to the Irishman's definition of an elephant, that it was a "a big pig with a tail at both ends," and on the other to the mistake of the learned French professor of obstetrics who, in diagnosing the presenting part of a child, affirmed it to be the face till the meconium on his finger convinced him of his error, and, without intending such a double-headed pun, we may reasonably adduce the two cases as good examples of the *a priori* and *a posteriori* line of argument.

and which is its teleology. It thus appears that the teleology may differ from the morphology, as the *spirit* of the law from the *letter* thereof, as the *expression* of a face from the *features* composing it, as the *practical* from the *technical* or *theoretical*, as the *actual* or *virtual* from the *nominal* or *ostensible*; in short, as the *thing* may differ from its *name*, the *de facto* from the *de jure*.

Having now seen that morphology and teleology are very different ideas, and that neither of them can be depended upon for the final determination of what concerns the other, and having also perceived that the polarity under consideration is a strictly morphological relation, we are better prepared to inquire into the extent to which, and the manner in which, it is confirmed by pathology.

Pathology concerns the effects of disease, and this consists in a perverted or unduly increased or diminished degree of the normal physiological action of the part or organs; so that in the brief survey of the subject which time will now allow, it will not perhaps be always easy to separate purely pathological phenomena from those anatomical and physiological facts upon which, of course, they to a greater or less extent depend.

I have already alluded to the possibility of confounding with each other the anterior and posterior regions of the fœtus *in utero* or rather during labor; the error would scarcely be possible after birth, yet the early application of the term *labia* to the external folds of the female pudendum implies the existence of an apparent or teleological resemblance to the lips, which is not precluded by the difference in the division of the lines of aperture, since in many reptiles the genital orifice is horizontal; and the correspondence is borne out by relative position, one of the surest guides to homology—for, enumerating the parts from the vertebral column downward (in a quadruped of course, and not in man, whose upright posture reverses the relation of the parts), we find, anteriorly, the *nose* or *anterior nares*, the *upper lip*, the *mouth*, the *tongue* and the *chin*; and posteriorly, the *anus*, the *perinæum*, the *genital orifice*, the *clitoris* (or *penis*) and the *pubes*, covered, like the chin, with hair.

The anatomical correspondence is as evident as are the physiological distinctions; and yet we have no right to deny the existence of at least a morphological relation with nobler parts, to organs which, though they lie between the rectum and the bladder, fulfilling the vilest functions of the animal economy, yet furnish the germs of what shall become a new being, which nourish and protect it and at last bring it forth.

All the phenomena of conception and birth are illustrations of the law that not the name of a thing, but its *use*, can ennoble or debase; and a wish that the fabled up-springing of Minerva from the head of Jupiter should become the normal mode of human parturition, will be entertained only by such as refuse to recognize the essential dis-

inction between morphology and teleology—between the thing as it is named and as it is used.

In considering the diseased conditions of these parts, and indeed of all others, it is well to bear in mind the following observation of Mr. Paget.* “It is obvious that if there be no such law (as that of symmetry or polarity in disease), then the probabilities are greatly against any slight disease ever occurring coincidentally on two exactly corresponding parts of the body, and leading to exactly similar results in each of them. . . . This being the case, a single example of symmetry must be of much more weight to affirm the existence of such a law, than a hundred, in which it is absent, to deny it.” An argument perfectly correct, and which recalls a case in law, where a single positive outweighed a dozen negatives: a man being confronted by a witness who swore that he had seen him steal a fowl, indignantly exclaimed, “Surely I can bring a dozen men to swear they did not see me steal it.” But the court considered the latter kind of evidence inadmissible.

In addition to the above from Mr. Paget, I will refer also to a remark of Dr. Budd, to nearly the same effect;† and on the following page he says, “the examples of symmetrical disease are most often presented in chronic affections.”

But, besides this, it is obvious that the condition in which the normal or morphological polar manifestations of disease are least modified by external agencies is that of the fetus *in utero*; and in the remaining portion of this paper I shall confine myself chiefly to illustrations of pathological polarity drawn from the effects of chronic and constitutional diseases upon the new-born infant and young child: and furthermore, since the correspondence or polarity between the right and left sides (lateral polarity) is so generally admitted as to need no confirmation from pathology, I shall speak more particularly of those diseased states which, so far as they go, confirm the other and less evident relation of homology—*longitudinal polarity*.

In the work of Whitehead on Hereditary Diseases, which treats almost exclusively of infantile syphilis, under the head of external phenomena, are specially described certain cutaneous diseases of roseolous and tubercular nature which by preference attack the *face* and the *breech*, as is also the case with gummy tumors and an affection resembling psoriasis.

The frequent occurrence of the cutaneous symptoms of venereal disease upon the anterior and posterior regions of the body, is sometimes generalized and supposed to be accounted for, by saying that they occur most frequently about the mucous orifices. Diday‡ says, “we place the reasons for this frequency in the structure and the functions of these parts.” But I am inclined to think that these facts

* Op cit., page 34.

† Op cit., page 134.

‡ On page 63 of his work on Infantile Syphilis.

are not *causes* but *coincidences*, associated with the general law of polarity, which, as has been said, is oftener broken than kept.

Dr. Budd describes and figures cases of ordinary lepra in which the eruption appeared only upon the elbows and the knees; and Willan speaks of psoriasis affecting the palms and the soles.

On the other hand, however, the more common occurrence of cracks, or *rhagades*, at places where the skin folds, as over the joints, at the angle of the mouth, septum of the nose and corners of the eyes, and of certain patches of ulceration in the flexures of the body, where they may commence as simple intertrigo, are cases where the locality may properly be regarded as a predisposing cause.

Of the four so-called special senses, the organs of three—sight, hearing and smell—contain actual prolongations of the brain towards the surface, and are not repeated posteriorly.* The fourth, however, has for its organ the tongue, and this, as we have seen, answers to the penis or clitoris, the sensibility of which, like taste, is only a peculiar exaltation of the general sense of touch, and depends for its exercise upon the common cranio-spinal nerves, and not upon any special prolongation of the nervous axis.

There is a *frænum lingue* and a *frænum preputii*, but one is on the lower, the other on the upper side of the organ (supposing man in a horizontal position, with the penis directed backwards); neither of them, however, are sufficiently constant among vertebrates to warrant us in regarding them as of much morphological value, and their existence in some mammalia is rather suggestive than confirmatory.

But it is not an accident that sensuality is predicated of the abuse only of the taste,† this including both gluttony and lust; also that social and sexual intercourse are exercised by the two organs above named, occupying corresponding portions at opposite ends of the body. The subject need not be pursued further.

It is well known that the eye is very liable to gonorrhœal ophthalmia, and its mucous membrane seems to be particularly capable of receiving, and being excited to action by, the poison of gonorrhœa. It does not follow from this that we should try to homologize the eye with any of the organs primarily affected with that disease, or that, failing in this, we should deny a polar relation between any two parts whatever, but rather recollect that the eye is the sense-organ more peculiarly appertaining to the head, as the ear and the nose do to the thorax and abdomen respectively, and may therefore be expected to partake of the general depression of the cephalic organs caused by abuse of the sexual functions, as is also indicated by the peculiar dryness of the conjunctiva complained of in the same connection.

Passing now to the nervous system, we find that, despite the vast preponderance of the cephalic end of the cranio-spinal axis in the

* The existence of posterior eyes in certain worms (*Rhacobdella*, Fabricii and *Amphiora sabella*) does not conflict with this, since the eyes of articulates are not, morphologically, so different from the general integument as those of vertebrates.

† See Oken's *Physio-Philosophy*, paragraph 2331.

adult state of the higher vertebrates, yet in the immature stages of these and in the perfect state of the lowest, no such discrepancy exists; and in the goose-fish there is a distinct posterior ganglion of the spinal cord: the brain is an after-growth for teleological cause, and no one who has suffered the excruciating pain in the small of the back, accompanying most febrile diseases, will question the importance of the portion of the myelon there situated, to which part also are referred the sensations of relief, more or less distinctly felt, upon the discharge of the contents of intestine, bladder, uterus or testis.

Romberg* says that hyperæsthesia of the sexual organs in females is usually due to a centric cause, and that a principal part of the treatment consists in counter-irritation applied to the small of the back; on page 142 he adds, that in hyperæsthesia of the hypogastric plexus the lumbar portion of the cord is implicated, as shown by the pain in the small of the back, from which the neuralgic attack frequently proceeds. The same author† speaks of an antagonism between the upper and lower portions of the spinal cord, irritation of the former causing flexions, and that of the latter extension of the limbs.

I have myself noticed that when, during the process of shampooing, the stream of warm water was directed over the occipital region there was a distinct creeping or crawling sensation in the small of the back.‡

In regard to nervous affections of other organs, Romberg further states§ that priapism often follows injury to the cervical portion of the cord, and that respiratory and œsophageal spasm may be brought on by irritation of the uterine nerves.

Intestinal irritation, especially that produced by *lumbrici*, often excites pruritus of the nose; so, also, does stone in the bladder often cause irritation of the glans-penis; but this is evidently a case of sympathy between parts of the same functional system, and in this respect resembles the sympathy of the mammary gland with uterine disturbance, though in this case a direct connection other than a general nervous one cannot be traced.

In Circular No. 6, Surgeon-General's Office, March 10th, 1864, are described seven cases of reflex paralysis from traumatic cause; to them may be added an interesting case reported to me by Dr. J. F. A. Adams, under whose care it was in Washington. Of these eight cases, five indicate a sympathetic relation between the affected limb and its lateral or longitudinal homologue; in three of these the leg was hit, and the *arm* of the same side was paralyzed. In four cases the leg was hit and the paralysis affected the other *leg*, and in two of these latter the paralysis of tact and the pain were observed to

* Diseases of the Nervous System, vol. i. p. 146.

† Op. cit., vol. ii. p. 52.

‡ Op. cit., vol. i. p. 286.

§ I desire here to say that on page 17 in the memoir already mentioned, was too hastily expressed an opinion as to the longitudinally homologous parts of the cranio-spinal axis. I do not now feel able to decide in my own mind, and leave it for further investigation.

have fallen upon a place exactly corresponding to the wounded spot as regards position.

The peculiar infantile convulsion called, from its affecting both the hands and the feet, *carpo-pedal contraction*,* is, as it were, a pathological corollary to the simultaneous movements of all the limbs in a young child when attempting to move any one of them.

I have already alluded to the remarkable sympathy between the testes and the parotid glands, inflammation of the latter being very prone to invade the former; generally it attacks the organ of the same side, and even returns from the testes to the gland and back again, oscillating thus two or three times between the two organs.†

The muscles have not, so far as I know, afforded any pathological illustrations of longitudinal polarity, but the correspondence between those of the anterior and posterior limbs is quite close, and is readily seen if we are content to compare in some cases groups of muscles instead of endeavoring to homologize single individual muscles with each other.‡

The puzzling phenomena of acute and chronic rheumatism, which attacks various parts of the body according to no rule yet offered, may with careful study be found to more or less closely conform to the law of pathological polarity.

As to the osseous framework, no aid has been furnished by pathology towards a solution of the still mooted question as to which bones of the shoulder (which is morphologically the visceral arch of the occipital vertebra) and of the pelvis repeat each other. Most of the attempts so far have been made on the assumption that the two limbs repeated each other in the *same directions*, which has led to the most extraordinary conceptions, on the part of men otherwise quite reasonable, as to the precise homology of these bones. There is still room for doubt, but I fully believe that, like the limbs themselves, the bones of the pelvis and shoulder (including, perhaps, the hyoid arch) repeat each other in *opposite directions*.§ There are recorded cases of disease affecting the front of the femur and the back of the humerus, the knee and the elbow, and the front of the tibia and the back of the ulna.||

But by far the most satisfactory examples of pathological polarity, both lateral and longitudinal, especially the former, are supplied by the arteries, which like the nerves are deep-seated and removed from external agencies which might interfere with the manifestations of so peculiar a law as the one under consideration; but unlike the affections of the nerves, inflammation of their inner coat is decidedly organic in its character, and leaves a visible trace of its occurrence.

.Bizot,¶ in treating of the atheromatous affections of arteries,

* Romberg, op. cit., vol. i. p. 329.

† Watson's Practice, p. 775. Cynanche Parotidea.

‡ Memoir on Morphology and Teleology, p. 32.

§ Ibid, p. 18.

|| Paget's Surgical Pathology, vol. ii. p. 245.

¶ Memoirs de la Société d'Observation, vol. i. p. 262.

after having enumerated many cases of deposit occurring in a polar manner upon the right and left side, says, that "in the radial and peroneal arteries, the patches and the ossifications appear at the same time."

But the limits of my time and opportunities have prevented the preparation of a complete and exhaustive survey of this subject, such as must be made before we can expect all to look upon the principle of pathological polarity as established; and I shall be satisfied if the facts and ideas which I have presented may serve to indicate to others the direction in which they may profitably employ their thoughts and observations.

It cannot, however, be denied that, interesting and instructive as is the law of pathological polarity, yet it is one of theory rather than of practice, and that though its recognition may sometimes be of practical importance, and though the physician may find that some idea of it is essential to a comprehension of many facts which come under his observation, yet, having done this, his concern is more often with the exceptions thereto.

Perhaps there is no better illustration than this of what may have been inferred from preceding considerations, that morphology is for the sake of teleology, and not *vice versa*; that rules are made for the sake of the facts which they include. If morphology, if laws, if principles were the final objects of creation, we surely should oftener meet with typical forms departing as little as possible therefrom. Owen's hypothetical archetype of the skeleton would actually occur in some species, and it would not have required years of research and the closest scrutiny to demonstrate its existence.

So with groups of animals. It is only by patient and laborious comparison of different species that we obtain an idea of the typical form of any one group; while if the mere manifestation of this typical form had been the end and aim of the Creator, we should meet with only the simpler animals, in which the type, or morphology, would readily be discovered.

Such, however, is not the case; and the difficulties encountered by the philosophical anatomist and zoölogist in their endeavors to gain a clear idea of the plan, or morphology, of animals, or groups thereof, may be a hint that their study is not the only one, and that it should not be pursued to the exclusion of the simpler though no less elevating contemplation of the uses or functions which they perform.

In the same manner that the bones are made for the attachment of muscles and the support of other organs, and not that they themselves may be covered and protected by them, do laws and principles exist, not for themselves, but for the sake of the particular facts which are grouped around them.

ON THE PRACTICAL USES OF THE LARYNGOSCOPE AND THE RHINOSCOPE.

By EPHRAIM CUTTER, M.D., BOSTON.

[Continued from page 16.]

IN DIAGNOSIS.—CASE XI.—A loom tender residing in Lawrence, Mass., 33 years of age, made complaint of dyspœna on exertion, of pain in throat, of a cough, of loss of sleep from choking up, of occasional aphonia, of hoarseness, and of a change in the quality of voice; these troubles had existed for three years. He was a married man of medium size, sandy complexion, thin face, sunken eyes, and with a countenance expressive of suffering.

On physical exploration of thorax the respiratory movements were found symmetrical, the heart's impulse was felt, and heard most strongly in the epigastrium. There was dulness on percussion, and some feebleness of respiration over the lower thirds of both lungs. No adventitious murmurs were heard anywhere.

On inspection laryngoscopically the epiglottis was found very prone, infantile in its characters except its size; it was folded straight, with no eversion of tip or edges. On the left side of larynx, above the cords, was a light yellowish colored deposit irregularly rounded in shape, and about three lines in diameter. This deposit evidently covered an ulcerated surface. There was swelling, with œdema of the mucous membrane covering the inside of the right lateral half of the larynx above the vocal cords, narrowing the calibre. Besides these was a narrowing of the laryngeal opening antero-posteriorly. The vocal cords were all present. They were of a pale red color, and entirely destitute of the normal healthy, white, pearly sheen. On the right vocal cord, near its insertion into the arytenoid, was a small fleshy excrescence, which appeared pale red and granulated. Its size was estimated at three lines in length and one and a half line in breadth. It was attached by its whole length to the free edge of the vocal cord. From the swelling the right lateral half of the larynx appeared much more developed than the left. The sulci or fossæ between the larynx and the pharyngeal walls, and also between the tongue and epiglottis, were normal.

The point of interest in this case is that phonation was clear and distinct, notwithstanding the presence of ulceration, the destitution of the cords in normal color, and notwithstanding the neoplasm.

CASE XII.—A lady 30 years of age, American, employée in a paper box manufactory, complained of pain and soreness in throat, choking, dry cough, and hoarseness. Troubled most when attempting to read out loud, by finding that her "voice seems to close right up and become useless for some time."

The subject was very facile, and a careful inspection of the larynx showed nought but a linear ulceration of the interarytenoid band at the insertion of the left lower cord. This surface was apparently

whitish, two lines by six lines, roughened, and depressed slightly. This spot was exactly treated with a solution of nitrate of silver 3 i. to f 3 i. of water, applied by means of a silver sponge holder guided by the eye. The result reported by the patient was entire relief from the symptoms.

CASE XIII.—*Negative Diagnosis*.—Mrs. Dr. A. C., a middle-aged lady, an invalid for twenty years or more, has been aphonic for that period. The aphonia came on in connection with a severe chronic affection of the bowels of a dysenteric character, which has persisted in a modified form ever since. The loss of voice has not been complete, for it has occasionally returned during dreams in the use of exclamations, but with no persistency. Her temperament is nervous to a high degree. Her husband, who is an exceedingly intelligent and well read physician, has not found any appreciable thoracic or cervical abnormality. In his opinion the aphonia depended upon the nervous debility resulting from the abnormal disease; that finally from simple disuse the power of phonation was lost, and that if the voice was recovered it would be by beginning, *de novo*, like a child, to learn to talk.

Inspection, with light from kerosene lamp, thrown in by forehead reflector, showed at the first sitting nothing satisfactory. At the second sitting direct sunlight was employed, the observer standing up and the patient occupying a chair. The epiglottis, the arytenoid cartilages and their connecting band, the walls and ventricles of the larynx, the ventricles, and the rings and mucous membrane of the trachea were normal in appearance. Both vocal cords on both sides were present, and in thickness, continuity, parallelism, and pearly white sheen disclosed no evidence of disease. The calibre of the larynx was large, amounting almost to masenline.

The contrast between this case and case XI. is strong. Here we have aphonia without appreciable lesion, in the other we find well marked structural and organic changes with no constant deprivation of the powers of speech. It shows also the important rôle the nerve force plays in the performance of physiological functions.

CASE XIV.—A married woman, 29 years of age, mother of two children, was always perfectly healthy until about 28 years of age, when she had an attack of pneumonia, as she says, "and it was thrown off" by intervention of remedies. Soon after her children had whooping cough, and she acquired it sympathetically, having every symptom but the whoop. At about this time she had occasional aphonia, that is, her voice would leave her at times and then return. The intervals of cessation were varied from a few moments to days. At the time of examination, fifteen months from the commencement of difficulties, she appeared perfectly healthy in general appearance. Health good in almost every respect except the trouble in throat, which is marked by the loss of voice, by occasional cough, by soreness, by expectoration of unusual characters, and by choking occa-

sionally. She has been enabled to sing alto within six weeks of the examination.

Inspection laryngoscopically revealed the following appearances: Epiglottis large, prone, pale; arytenoids normal; the four aryteno-thyroid bands were entirely destitute of any traces of the normal white, pearly sheen. On them and the ventricles between appeared an ashy colored (sometimes yellowish) deposit, existing in small, rough masses of irregular shape, with detached edges, as if exfoliating like the outer bark of an exogenous tree, which physical appearances gave rise to a diagnosis of ulceration of all the vocal cords and the ventricles. There was some thickening of the mucous membrane above.

CASE XV.—My son Benjamin, aged 8 years and over, contracted a severe cold in January, 1866, in extreme cold water. Harsh "croupy" cough during the night, partial aphonia, soreness of throat, some heat of surface and body, loss of appetite. No severe paroxysms of dyspnœa. There was unusual redness in the fauces and some elevated patches. Epiglottis normal. Larynx normal, except some swelling and increased redness of the vocal cords. There was no deposit of an adventitious character present.

In this case the harsh cough so peculiar in spasmodic croup seemed to be caused by the effects of simple inflammation of a moderate kind.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JAN. 22d.—*Large Aneurism of the Thoracic Aorta, with Perforation of the Sternum.*—Dr. J. MASON WARREN reported the case.

"Mr. L., 66 years old, was attacked in 1862 or 1863 with dyspnœa, attended with considerable congestion about the face, coming on suddenly, after some mental emotion caused by the loss of a friend. Being examined by his physician, strong pulsations were perceived in the neighborhood of the sternum, and a pulsating tumor, with aneurismal thrill, was detected at about the middle of that bone. At this time I saw him in consultation.

"The patient was of plethoric habit, had been generally healthy, but had led a laborious life, being connected with a printing office, and up late at night. Some years before he had had a rheumatic attack about his shoulders, lasting three months. I advised quiet, a vegetable diet, and great care as to exercise and excitement, until the course of the disease was fully developed. Under this treatment the thoracic symptoms were relieved, but the tumor gradually increased, and he finally came under my care, with severe attacks of hæmorrhage from the nose, which required surgical interference.

"In November, 1865, after having thus passed two or three years in

comparative comfort by means of great care, he was suddenly taken, while absent from home, with an attack of faintness and insensibility, and being carried to his house, on my seeing him, I found the right side of the body paralyzed. His face was not red, as in apoplexy, but of a livid paleness. He gradually recovered his senses, and by the following morning his mind was fully restored. The attack was supposed to be one caused by the escape of a coagula from the tumor, lodging in and obstructing the vessels supplying one portion of the brain, and temporarily suspending its functions. The paralysis of the leg and arm, which had been complete, gradually disappeared, so that at the end of five or six weeks nothing but a slight stiffness remained. At this time the tumor on the sternum occupied nearly its entire breadth; it was thirteen inches in circumference, and had an elevation of between three and four inches. The parietes appeared bony for about half this distance, though on examination after death this proved to have been deceptive, being above excessively thin, and apparently composed simply of the skin and the aneurismal sac. A slight ecchymosis had taken place on the surface. Pulsations in it were very active and powerful.

"Some change in the aneurismal tumor had produced an affection of the air-passages, so as, at times, almost to threaten suffocation. These symptoms, however, gradually subsided, so that at the end of a couple of months the patient was in a comparatively comfortable state, able to walk about his room and to take a moderate amount of food.

"On the 15th of January, early in the morning, at about 4 o'clock, he complained of a sudden pain in his right elbow, shoulder and side of head, and almost immediately expired."

On examination of the body the next day, the following were the appearances presented.

The sternal tumor had shrunken but little. In the left side of the chest there was a quantity of bloody serum; in the right mediastinum was a large coagulum, enough to fill a quart measure; the pericardium was firmly adherent to the heart and parietes of the tumor. Through it by a small rent, about half an inch, the blood had escaped.

Neither the trachea, cesophagus, nor bones on the back part of the chest appeared to be interfered with by the tumor; the irritation of the laryngeal nerve probably having a part in the laryngeal symptoms which were occasionally manifested.

The aneurismal sac was as large as the two fists, and closely and extensively adherent to the anterior parietes. It arose from the ascending aorta towards the left side; and the opening, which was of an oval form and remarkably defined, commenced one and a half inches above the aortal valves, and reached to within the same distance of the arteria innominata. It was evidently a false aneurism, and the cavity was nearly filled with soft fibrin and grumous coagula.

There were also two other small aneurismal sacs, quite distinct from the above. One was two inches from the aortal valves, forming a very defined, rounded tumor upon the outside of the artery, of a dark-red color, firm to the feel from its being filled with coagula, and in size about equal to a nutmeg; the other, arising from near the origin of the arteria innominata, was in every respect similar, except that it was more than twice as large. The orifice of each of these little sacs was

of an oval form, quite small, and so defined as almost to look as if a piece had been punched out.

The aorta, as far as where it was cut off towards the diaphragm, was quite diseased, with considerable cretaceous deposit. The ascending portion was very much dilated, and measured transversely about seven inches, without including the opening of the large sac. From the arch downwards it was about the natural size. Upon the right side of the ascending portion, and commencing two inches above the valves, was a "true" aneurism, the cavity of which was shallow, but sufficiently defined, and measured one and a half inches in diameter. This, of course, was not included in the above measurement. There was also a defined dilatation of the arteria innominata, at its origin and in its whole circumference, and extending upwards about three fourths of an inch.

The heart was healthy, with the exception of the adhesions mentioned above. The upper vena cava also was completely obliterated, within an inch of its opening into the auricle, and to the extent of three fourths of an inch; nothing being seen of the vena azigos.

The sternum was entirely destroyed from just below the cartilage of the second rib to opposite that of the fifth; and, the coagula having been removed, the ragged ends of the cartilages were distinctly felt within the sac.

I am indebted to my friend Prof. J. B. S. Jackson (to whose charge the specimen was committed), for a part of the above anatomical description.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 5, 1866.

REPORTS OF THE TRUSTEES OF THE MASSACHUSETTS GENERAL HOSPITAL, AND THE TRUSTEES OF THE CITY HOSPITAL, BOSTON,
FOR THE YEAR 1865.

The Massachusetts General Hospital has long held an honored place in the minds of the medical profession of New England, for standing as it did for so many years the only hospital in this section of the country, a very large proportion of its representatives have been practically acquainted with its operations, and have derived from their observations within its walls knowledge which has been of inestimable value to them. Venerable from its age, dating back to the year 1811, the oldest hospital but one in the United States, it for a long time was looked upon as the model of such institutions; and although modern and more ambitious structures may be provided with some conveniences of arrangement which our fathers did not provide for, the venerable hospital in Blossom St. is still generally regarded as a wisely managed and most active instrument of public benevolence. Its annual reports, therefore, are always hailed with interest, and the one before us contains much to attract attention from all its well-wishers.

We have recently referred to the financial embarrassments which

have greatly crippled its resources, embarrassments inevitable from the enhanced expenses of carrying it on for the past few years and the increasing burden of free patients. We are glad to perceive that extra income for the present year has done something to check the swelling tide of debt which has so seriously threatened the future prosperity of the institution. The income from paying patients has also been more than twice the average for the past five years. We learn, too, that the efforts to raise a fund by subscription to relieve, it entirely from its embarrassments is meeting with the most encouraging success.

From the statement of the superintendent, Dr. B. S. Shaw, it appears that "the admissions in the year 1865, numbered 1199; of which 140 were on account of accidents. The average number of patients was 113: males 66, females 47. Average length of stay of patients, a little over four weeks. Proportion of deaths to whole number of results, 8.37 per cent." Average weekly cost of each patient, \$9.86.

In the year 1864 the number of admissions was 1599, and the average number of patients, 138. The diminished number of patients during the past year the Trustees attribute to the influence of the City Hospital, which has just completed its first full year of active operations.

5356 out-patients have been treated at the Massachusetts General Hospital during the past year. Of these 2469 were males, and 2887 were females. 2176 were Americans, and 3180 were foreigners.

The annual report of the superintendent of the McLean Asylum for the Insane (as our readers are aware, a part of the hospital system under the management of the board of trustees of the Massachusetts General Hospital), contains, as usual, much wise advice, which the community at large are not so ready to profit by as it is their interest to do. Few superintendents of asylums for the insane speak with such kindly, genial wisdom as our friend Dr. Tyler, of Somerville, and the more is the pity that the busy world does not more generally listen to his counsels. This report contains his usual earnest protest against the headlong, exhausting spirit of the age, which perils everything in its reckless devotion to any pursuit in which the devotee is engaged, but chiefly the pursuit of gain. He also calls attention to the error into which so many fall of developing, by constant exercise, one set of faculties or organs, to the neglect of others, not realizing that they are thereby weakening the whole organization, which is never stronger than its weakest part. But we must forego a detailed analysis of this excellent report and come to its statistical statements; by which it appears that at the beginning of the year there were in the asylum 195 patients, of whom 90 were males, and 105 were females. During the year, 82—42 males and 40 females—have been admitted. Discharged in the same time, 85—39 males and 46 females. Of these, 38—15 males and 23 females—were discharged *well*; 12, 6 of each sex, *much improved*; 12, 6 of each sex, *improved*; 6, 1 male and 5 females, *not improved*; and 17, 11 males and 6 females, have *died*. Number of patients now in the asylum, 195—93 males and 99 females. Whole number of patients during the year, 277; weekly average, 186.

The annual report of the Trustees of the City Hospital shows that

the sphere of its usefulness is rapidly extending. We are glad to observe that provision is making for a class of cases which have been too long without any adequate retreat; namely, for patients sick with contagious or infectious disease. For the accommodation of this class a pavilion has been erected near the southeast corner of the hospital grounds, 101 feet long and 45 feet wide, two stories high, with a ventilating chamber 10 feet wide extending the whole length of the building. This building is divided into small rooms, each intended to accommodate two patients, and the utmost care has been taken to provide for their thorough ventilation and heating. The grounds about the hospital have been improved during the past year, and necessary outbuildings have been constructed, so that nothing seems to be wanting for the complete accommodation of the class of patients received into this institution. The trustees express a lively interest in the educational advantages of the institution, and are desirous of doing everything in their power to enable medical students to improve the opportunities of clinical study which are offered by its wards; and we fully agree with them that we "see no good reason why the united and harmonious action of the medical gentlemen connected with the two hospitals should not build up a School of Medicine in the city of Boston second to none in the United States." The following statistics show the number of patients treated during the year:—

"Patients in hospital January 1, 1865, 101; admitted, 1,066; discharged, 953; died, 97; remaining, 117.

"Surgical, 499; medical, 459; ophthalmic, 102; smallpox, 2.

"Medical and surgical out-patients, 461; ophthalmic out-patients, 682."

The average number of patients in the hospital was 114, and the cost of maintaining the institution for the year was \$54,276.57; making the expense for each patient a fraction of a dollar less than at the Massachusetts General Hospital.

Movable Kidney. By MM. TROUSSEAU, DIETL and GILEWSKI.—M. Trousseau (*Union*, No. 32, 1865) observes that mobility of the kidneys exists in a large number of cases without the knowledge of the patient, so long as his attention, and by consequence that of his physician, is not called to it by the pain of which this organ becomes the seat from the effects of strong pressure or a blow. The greater frequency of its occurrence in females is attributed by M. Trousseau to the use of corsets, to relaxation of the abdominal walls following delivery, &c. The right kidney is oftener movable and painful than the left, the latter being better protected from injury by the great curvature of the stomach and spleen. M. Trousseau considers movable kidney an incurable infirmity, the inconveniences of which must be diminished as far as possible by the application of an abdominal bandage and cushion, and he advises rest for the relief of pain.

Prof. Dietl, of Cracow, attributes mobility of the kidneys rather to a state of general debility of the whole system than to a local cause. He agrees with M. Trousseau in affirming the more frequent existence of this affection in females than males, and that it is more common on the right than on the left side. Hardly in a hundred cases is there found a single instance of mobility of both kidneys.

Displacement of the kidneys is a frequent affection among the Poles. The principal predisposing cause is flaccidity of the abdominal walls; but it is to the causes which may produce this, particularly intermittent fever, which is common in Poland, that we must look for its primitive origin. This displacement is accompanied by difficult digestion, nausea, vomiting, followed by nervous disorders, hyperæsthesia, hysteria, hypochondriasis, and oftener still neuralgia. The patient complains of a feeling of pressure and pain in the right hypochondrium, increased by walking, after meals or from decubitus on the left side. These pains extend to the epigastrium in front and to the lumbar and towards the sacral region behind, never to the region of the bladder or towards the shoulder.

M. Dietl has seen two cases of strangulation of a displaced kidney, with circumscribed peritonitis. The immediate cause of such a strangulation is a more or less violent effort which displaces the organ, which is then found sometimes in the umbilical region and even as low as the iliac region.

Rational treatment gives relief, and cases of complete recovery are not rare; the reduction of the displaced kidney puts an end to the nervous symptoms. When the sensibility has disappeared, the kidney may be kept in place by an abdominal band or a hernial truss, provided with a suitable pad. When all the local symptoms are relieved, M. Dietl puts his patients under tonic treatment.

M. Gilewski, of Cracow, proposes the following theory of the strangulation of movable kidney. After a violent effort, or after a hearty meal, or even at the menstrual epoch, at the moment when the movable kidney happens to be strongly congested, it undergoes, on account of its increased volume, such a displacement that by its inferior extremity it compresses the ureter against the vertebral column.

There results from this an acute hydronephrosis, with pyelitis, retention of urine from the mechanical obstacle, and the sudden increase of the volume of the kidney. But this, by its own weight, changes its position, or rather the pressure produced by the accumulation of the liquid overcomes the obstacle to the flow of the urine and the strangulation is spontaneously relieved. M. Gilewski was led to this opinion by the sudden relief to the symptoms of strangulation coincident with an abundant flow of urine mixed with mucus and pus. This last fact has no value, of course, if there existed before a chronic pyelitis or another affection giving rise to a muco-purulent discharge. —*Archives Générales*, from *Schmidt's Jahrbücher*.

We have happened to see a number of cases of this affection, and our experience agrees in the main with that recorded above. All the patients were females, and, so far as our recollection serves us, the affected kidney was in all cases the right. The local uneasiness varied greatly in the different cases, and seemed to depend very much on the amount of mobility of the organ or temporary conditions of sensibility. In every case firm pressure on the displaced kidney was very distressing. In one instance the organ could be pushed quite up under the liver, nearly across the bodies of the lumbar vertebræ towards the left, or quite down into the right iliac fossa. We have thought that much of the suffering in these cases was produced by the apprehensions of the patient, who generally considers herself the

subject of a serious organic disease, an incurable tumor or cancer. It is not uncommon for the displacement to be first discovered by accident while the patient is in bed, the hand happening to rest on the part and thus for the first time calling the patient's attention to it. We can bear witness to the immense relief, to the patient's mind at least, which a correct diagnosis of this affection gives. She has frequently had her apprehensions increased by an erroneous diagnosis on the part of some medical adviser, and perhaps, as we have had reason to know, has been subjected to prolonged, unavailing medical treatment in consequence. Most of these cases have passed from our observation, but one of them, in which there was great mobility of the kidney, has been under our observation for the last four years, and since the patient's mind was relieved by a diagnosis she has suffered very little from the local difficulty. The most she complains of is a sense of weight or uneasiness in the part after being long on her feet or great bodily fatigue.

Cholera Items.—The cholera, which as we have before reported, was introduced into Brest from Gaudaloupe, is unfortunately extending from that port to the other points in Brittany. A letter from Guingamp to Dr. Charles Pellarin, of the date of the 25th of February, says :—"Here there is no cholera yet, although it has reached Bringolo, a commune twelve kilometres distant from Guingamp; it was brought there by a laboring man from Brest. This patient was the first to die, his wife and two children followed him, and after them twenty-three persons in a population of 800 souls. The disease has not extended beyond the limits of the place, but the father of the first patient, having come to Bringolo to attend the funeral of his son, carried it to Plouret, where, most fortunately, the disease has not yet taken root.

As physician of epidemics, Dr. Benoist has attended almost alone, and as you know with great devotedness, the sick at Bringolo. An anti-contagionist by previous opinion, he has become a contagionist by experience, thoroughly if not ardently so. He is obliged to yield, he says, to evidence."

Cholera has shown itself at Coëtmieux, a small village of 500 souls, five kilometres distant from Lamballe. It has had three victims in one house. The son, a sailor, fell sick one hour after his arrival (it is not stated from what part this young man came); he died the following morning. His mother and another person in the house died subsequently.—*Union Médicale* of March 6th.

Attachment of Fœtal Head to the Uterine Parietes.—Dr. E. H. Irwin, in the *Chicago Medical Journal*, reports what he well calls a unique case in Obstetrics, in which the fœtal head was firmly attached to the interior of the womb, near the brim of the pelvis, on the left side. The labor was greatly protracted, and the efforts of the uterus being insufficient to expel the child or detach it from its adhesions, and as the peculiarity of the case, as well as insufficient dilatation of the os, made the use of the forceps inexpedient, if not impossible, it was determined to have recourse to craniotomy. The operation of delivery

was a very difficult one, owing to the great strength of the adhesions, but was finally accomplished after three hours of unremitting efforts. Dr. Irwin says that "the adhesions were found to embrace that portion of the uterus, lying internal to the descending ramus of the left os pubis, and involved the region of the right temporal ridge of the child's scalp. The internal surface of the neck of the womb was red and dry, and one or two ulcerated surfaces were exposed; a paste-like looking substance appeared to be the connecting medium, which was applied so closely to the hair and scalp, that it required to be literally peeled from the uterus, leaving the connecting medium (which, I suppose, was the membranes) attached to the scalp. I watched the patient very closely for about a week. She was well nursed, and, notwithstanding there was *no secretion of milk*, recovered without any untoward occurrence, except a copious crop of boils upon the external genitals."

A Case of Trichiniasis.—Dr. Herman Kiefer, of Detroit, in the *Detroit Review of Medicine and Pharmacy*, reports a fatal case of this disease, which has heretofore been almost unknown in this country. The patient died at the end of the fourth week, and the *trichina spiralis* was found in great numbers in the muscles. Dr. Kiefer refers to other fatal cases as having recently occurred—one in Chatauque County, N. Y., under the care of Dr. Krompein, and one or two reported from Marietta County, Ohio, by Dr. Dingler.

• DR. JAMES C. WHITE has been elected Adjunct Professor of Chemistry in Harvard Medical School.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 31st, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	37	44	81
Ave. mortality of corresponding weeks for ten years, 1856—1866	42.7	37.3	80.00
Average corrected to increased population	00	00	87.15
Death of persons above 90		1	1

BOOKS, PAMPHLETS AND JOURNALS RECEIVED.—Proceedings of the American Pharmaceutical Association at the Thirteenth Annual Meeting, held in Boston September, 1865.—Surgeons of New York. By Samuel W. Francis, M.D. New York: John Bradburn.—Report of the Pennsylvania Hospital for the Insane, for 1865.—The Medical Record, No. 3.—The Detroit Review for April, Vol. i., No. 1.—Medical Reporter, No. 2.—Medical and Surgical Reporter, Nos. 11, 12, 13.—St. Louis Medical and Surgical Journal, Vol. iii., Nos. 1 and 2.—Buffalo Medical and Surgical Journal for March and April.—Savannah Journal of Medicine for March.—New England Medical Gazette, Vol. i., Nos. 1, 2, 3.—New York Lancet, No. 4.—L'Union Médicale, Nos. 26-32.—Gazette Médicale, Vol. i., No. 8.—Canada Medical Journal, Vol. ii., No. 9.—Ophthalmic Review, No. 8.—Chemist and Druggist for March.—Chicago Medical Examiner for April.—Cincinnati Journal of Medicine for March.

DEATHS IN BOSTON for the week ending Saturday noon, March 31st, 81. Males, 37—Females, 44. Abscess, 1—apoplexy, 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 3—inflammation of the brain, 2—bronchitis, 3—cancer, 1—consumption, 23—convulsions, 3—croup, 1—diarrhœa, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—epilepsy, 1—gastritis, 1—disease of the heart, 2—homicide, 1—infantile disease, 2—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 2—measles, 1—old age, 3—premature birth, 1—puerperal disease, 2—rheumatism, 1—scrofula, 1—synovitis, 1—unknown, 1—worms, 1.

Under 5 years of age, 27—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and 60 years, 21—above 60 years, 7. Born in the United States, 58—Ireland, 19—other places, 4.

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THURSDAY, APRIL 12, 1866.

No. 11.

REMOVAL OF UPPER MAXILLARY BONE FOR MYELOID DISEASE. PALLIATIVE OPERATION TWO YEARS BEFORE.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By J. MASON WARREN, M.D.

W. A. B., a young man, 19 years of age, entered the Hospital April 7th, 1864. He was formerly a soldier. One year and a half before, a small swelling was noticed upon the outside of the gum of the upper jaw, near the first molar tooth, following an attack of typhoid fever and a severe cold in his head and face from exposure after a too early discharge from the hospital. Thinking a carious tooth in that vicinity might be the cause of the swelling, he had it removed; but the appearance of the tumor was unchanged. Twice an incision was made in it, giving exit to a quantity of blood each time. Nine months or a year after, it began to increase in size more rapidly. Upon admission to the hospital the tumor measured one and a half inches in diameter; was ovoid, hard, not tender upon pressure, painful at times, pain "streaming up" the side of the face, and at such times the eye was frequently bloodshot.

Operation.—April 9th, the patient was etherized; the lip was drawn up, exposing the tumor. An incision was then made in the protruding wall of the tumor. Through this opening the finger was passed into a cavity containing a pulpy substance, which partly filled the antrum, and which was scooped out by the fingers. There was free hæmorrhage from the opening, into which a piece of sponge was inserted.

A fragment of the tumor was examined by Dr. Ellis under the microscope, and found to contain the many nucleated plates of myeloid growth, and distinct isolated nucleated cells, such as are usually found in the same connection.

Sixteen days after the operation, the patient was discharged, relieved.

On Wednesday, Nov. 29th, 1865, he returned again to the hospital for the removal of the upper maxillary, the disease having recurred and made considerable progress. Since the previous opera-

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tion he had served as a soldier in the volunteer army. The right side of the cheek was now occupied by a hard tumor, projecting the whole anterior wall of the antrum, and slightly impinging on the malar bone. The aperture mentioned in the previous account of the case was filled with a dark-colored, fungoid-looking mass, about the size of a chestnut. A consultation decided that the whole bone should be removed at once, as promising the only certain means of cure. The patient consenting, it was done in the following manner, which I shall describe in detail, as being the method which I have ordinarily pursued for the removal of the upper maxillary bone, and which leaves as little deformity as any of the methods proposed, where the disease to be removed is extensive. The patient being etherized sufficiently to carry him through the preliminary incisions, a sharp-pointed bistoury was plunged through the skin just above the zygomatic process of the malar bone. A curved incision was then made through the skin and muscles to the angle of the mouth. A bit of sponge had been previously stuffed into that cheek to prevent the blood from flowing into the fauces. When the skin of the face is more flaccid, as in old persons, this incision may be commenced lower down, thereby dividing fewer filaments of the facial nerve, leaving less paralysis. A too limited incision, however, embarrasses the section of the bones. The flap was now dissected rapidly up, the right ala of the nose cut away, and the contents of the socket dissected partially from the floor of the orbit. The bones now being well cleared, the vessels in the flaps were tied, the blood cleared away from the wound and a fresh application of ether made. With a small handsaw a groove was made in the ascending process of the malar bone and through the zygomatic process, and the section completed by the cutting forceps, the former incision extending into the sphenomaxillary fissure. The nasal process of the superior maxillary bone was now cut through in the direction of the same fissure. The mouth being held wide open, a vertical incision was made, with a strong, sharp-pointed knife, through the coverings of the hard palate as far back as the palate bone, and a lateral one from the termination of this behind to the root of the last molar tooth. Liston's large cutting forceps were now used to divide the bone, which they cleanly and efficiently did, the first incisor tooth having been previously removed. The whole mass was now seized with powerful hooked forceps and an attempt made to depress it, but it held fast at its junction with the pterygoid process of the sphenoid. A chisel was therefore driven in behind the bone and an attempt made to break its attachments, but without success. A blunt chisel was then inserted between the two maxillary bones, and by a prying motion the adhesion to the bone behind was broken off. The remaining soft attachments were divided by curved blunt scissors. The maxillary artery spouting out freely, was restrained for a moment by means of a sponge until the fauces were freed from blood and respiration was established. The vessel was then

easily secured. After waiting until all hæmorrhage had ceased, the edges of the skin were accurately brought together by numerous sutures, great care being taken to nicely adjust the lip; and one or two sutures were taken in the mucons membrane.

The patient, although a powerful young man, seemed greatly depressed from the shock of the operation, and stimulants were freely administered. There was some oozing from the wound during the day. For a number of days the pulse remained feeble and the strength much depressed. At the end of two weeks the powers of life revived, and he then began to recover with great rapidity. The paralysis of the face, which is sometimes very marked, was less than usual, and with a slight effort the eyelids could be nearly closed. Sight was not impaired. The union of the wound was perfect, except at one small spot where a salivary fistula seemed to threaten.

On inspection of the diseased part, the cavity of the antrum was found filled with a soft, dark-colored, spongy mass, which, under the microscope, presented the well-marked characters of myeloid disease. The disease was entirely removed by the operation.

Remarks.—The incisions made in the soft parts in this case leave as little deformity as any of those suggested for the excision of this bone. Gensoul recommends incision of the upper lip, a cross cut through the cheek and a perpendicular one at the end of this, leaving three very disagreeable scars. Fergusson, a simple cut through the upper lip into the nostril, or possibly a continuation of this incision around the margin of the ala and up the side of the nose; but these would hardly give room in a case like the present. In regard to the bones, it has been recommended to make one cut through the maxillary process of the malar bone into the spheno-maxillary fissure, instead of dividing the zygoma and the frontal process of the malar bone. The objection is that the development of the tumor generally occupies the whole cheek and prevents, in most cases, the execution of the plan proposed. The trying point of the operation is the adhesion of the maxillary bone to the pterygoid, made more firm by inflammatory action, so that in malignant diseases, in attempting depression of the bone, the front part of the antrum is apt to break away from the posterior portion, requiring the back part to be subsequently removed with the chisel or forceps.

The little deformity left from so very great an operation is remarkable. There is a slight paralysis in the cheek, and at first a confusion in the speech and some difficulty in deglutition, which can almost completely be remedied by artificial appliances of gold, gutta percha or hard India rubber.

With a little management, a much larger portion of the soft parts covering the palate might be saved, as they peel off easily when the bone is depressed.

This patient recovered perfectly. The salivary fistula, which it was feared would be permanent, closed after two or three free appli-

cations of caustic. The voice and deglutition were, of course, very much impaired by the great cavity left after the removal of the bone. These, however, were completely restored by the ingenious construction of a hard rubber obturator and palate, made by Dr. Rufus E. Dickson, dentist. He now speaks well; liquids no longer regurgitate through the nostrils, and on the first of March he left for his home in New York. He was previously present and examined by the members at one of the meetings of the Boston Society for Medical Improvement, and the pathological specimen exhibited at the same time.

THE INOCULABILITY OF TUBERCLE.

[Read before the Société Médicale des Hôpitaux February 23, 1866, by M. HERARD, Physician of Lariboisière, and translated from the *Union Médicale* of March 8 for the *Boston Medical and Surgical Journal*.]

You remember, gentlemen, that in a recent communication to the Academy of Medicine, Dr. Villemain, associate professor of Val-de-Grace, announced that he had succeeded in inoculating rabbits with tuberculous matter from phthisical patients, and laid down the following propositions:—

Pulmonary phthisis, like tuberculous affections in general, is a specific disease.

Its cause exists in an inoculable agent.

Tuberculosis belongs to the class of virulent maladies, and should take its place in nosology by the side of syphilis, but perhaps nearer to glanders and farcy.

Desirous of verifying for ourselves the experimental fact which served as the base for such important and unexpected conclusions, M. Cornil and myself have made some inoculations, and although our experiments were not so prolonged as we had wished, the results nevertheless that they have furnished have seemed to be remarkable enough to be worth communicating to you. Let us say at once that these results are confirmatory of those of M. Villemain.

We have submitted to experiment seven rabbits about six weeks old. Six of them were placed in a large rectangular box, where they could move about and breathe at ease; the seventh was allowed full liberty. Upon this one, as well as one of the remaining six, no inoculation was practised. Of the remaining five, three were inoculated exclusively with the matter from grey tuberculous granulations, semi-transparent or opaque, yellowish, collected from the peritoneum and pleurae of a phthisical patient. For the two last we employed exclusively caseous matter carefully extracted from the lungs—the caseous matter which is yet considered by the majority of physicians as the type of tubercle, but which in our opinion is but a catarrhal pneumonia which has reached the retrograding fatty stage, caseous pneumonia.

The inoculation was done twice, on the 12th of December and the

1st of January, according to the method indicated by M. Villemin. With a narrow-bladed bistoury we made a subcutaneous puncture near the base of the ears, and in the wound thus produced we insinuated small portions of the substances mentioned above, which we had previously broken up by triturating them with the point of the instrument.

The seven rabbits, placed in a large cellar, sufficiently ventilated and well fed, were killed a fortnight since, about two months after the first inoculation. The following are the results furnished by an examination of their organs:—

1. The two rabbits which had not been inoculated presented no lesion of the lungs or other viscera which could be referred to tuberculosis.

2. The result was equally negative with regard to the two rabbits inoculated with the caseous pulmonary matter.

3. As for the rabbits inoculated exclusively with the matter of the granulations, two of them (the third being kept for a more prolonged experiment) exhibited in the lungs evident tuberculous lesions, although as yet but little advanced.

These lesions consisted in a group of numerous, small, semi-transparent, hard, grey granulations, cutting easily, giving a smooth section, in places a little opaque in the centre. Their substance, somewhat resisting, was composed of very small spherical nuclei, grouped together, with granular matter or fibres. These granulations resembled precisely those of man, and at the same time M. Cornil was able to satisfy himself that they were identical, both in external appearances and in histological composition, with those found in the lungs of the rabbits inoculated by M. Villemin, which had been kindly placed at our disposal.

The lower lobe of the lung in one of the two rabbits was strongly congested throughout a considerable portion of its substance, and the parts in the neighborhood of the granulations contained large epithelial cells in the process of endogenous multiplication, and white corpuscles.

In addition, in the same rabbit, there was seen under the skin, on the right side of the neck (the side of the inoculation) a chaplet, as it were, of enlarged, softened, yellowish glands. One of these glands measured about one centimetre and a half in length. Their pulpy, opaque tissue broke down into a caseous, thick *bouillie*, and under the microscope could be seen, with the fibroid substance which formed the frame-work of the gland, lymph cells, nuclei or small cells, larger generally than in the normal condition, and infiltrated with fine granular and fatty matter.

The peritoneum contained numerous vesicular worms, and the liver of one of the two rabbits showed little yellow and grey points, which at first, as M. Villemin remarked, might have been taken for tuberculous granulations, but which microscopic examination revealed to

be the perfectly distinct eggs of the parasitic worms which are very common in rabbits.

The lesions which we are describing were too limited and too little advanced to produce well-marked functional trouble; and besides, the history of the diseases of rabbits, and particularly of pulmonary tuberculosis in them, has not, so far as we have learned, up to the present time attracted much of the attention of veterinary surgeons.

What appears to be about demonstrated is, that the rabbit may become tuberculous like most other domestic animals, and that, in certain irritations of the mucous membrane of the air-passages, more than in tuberculation, the cough is a sort of sneeze.

Our rabbits did not cough; one of them, that in which the lesions were the most pronounced, seemed to us to have embarrassed respiration; both had evidently lost flesh, and each presented a deep eschar in the middle of the upper part of the thigh. Was this eschar the result of deranged nutrition or of some other cause? We are in doubt. All that we can say is, that neither of the other rabbits, inoculated or not, presented such a lesion.

The preceding facts seem to us to demonstrate, as M. Villemin has shown, that tubercle is inoculable from man upon the rabbit. But at the same time they enable us to establish a distinction, which we believe to be a radical one in the history of tuberculosis, between the granulation, the specific, characteristic lesion, and the inflammatory caseous products which are developed in the lung about it. The one is inoculable; the others, if our view is the correct one, are not. We think that this distinction, founded on many other circumstances, has a real importance, and that, in this particular case, it will be sufficient to explain the contradictory facts, which will not be wanting, to be brought into opposition to M. Villemin's experiments.

We shall not follow our learned brother into the nosological considerations to which his interesting discovery has led. We do not propose to inquire just at what point the generally received ideas upon the nature of pulmonary phthisis, its non-contagiousness, &c., must be modified. We believe that this discussion would be to-day premature, and that it could not be profitably undertaken until new experiments of inoculation have been tried on different species of animals. What we have wished to do at this time was, to verify for ourselves the exactness of the experimental fact, as a point of departure for ulterior researches; and, as we have said, this fact appears to us to be established beyond all dispute.

HUMBOLDT MEDICAL COLLEGE OF ST. LOUIS.—From the plan of this Institution, as announced in the *St. Louis Medical Reporter*, we learn that it proposes to devote itself particularly to the training of medical students for the practice of specialties.

RELATIVE ACCOMMODATION.

[Communicated for the Boston Medical and Surgical Journal.]

In Donders's "Accommodation and Refraction of the Eye," Chap. III., p. 110, the following passage occurs:—"It is easy to convince one's self that both eyes together, as well without as with slightly concave or convex glasses, can *accurately* see an object at a definite distance, and that, consequently, *without change of convergence*, the accommodation can be modified." The italics are ours. Upon this principle is based his determination of the amount of relative accommodation, that is, of accommodation for a given convergence of the optic axis. See pages 114, 118. The above principle, however, appears to conflict with an experiment, substantially that referred to by Giraud-Teulon in Chap. X. of his Binocular Vision, as follows:—

Let each eye be armed with a convex glass of six inches focal distance, and in order to avoid the prismatic effect of the lateral portions of the glasses, let them be covered, except over a circle of about an eighth of an inch in diameter at the centre. Let the object to be looked at be a short, thin, black line on white paper at above five inches from the eye. Adjust each glass separately, so that the line appears sharply defined and in the middle of the space seen through the uncovered portion of the glass. Then on looking with both eyes at once, the object, the line, is *at first* seen double, the right image by the left eye, and *vice versa*; after an interval of time, greater or less, the two images become combined, by lateral movement towards each other, into an *indistinct* line, or two lines very near to each other, *both indistinct*.

According to Giraud-Teulon, each picture is seen in the direction of the object, but owing to the effect of the convex glass, farther off than the object; in this way the double images are readily accounted for, and also the circumstance of their being crossed. He also thinks that in combining the two pictures, the eyes turn farther inwards. The experiment, then, seems to show either that during the binocular union of the two pictures the optic axes do not remain directed towards the objective line, or, judging from the indistinctness of the combined picture, that the eyes are not exactly accommodated for the rays as they come from the glass; in either case an inconsistency with the principle referred to above. It may be said that Donders specifies "*slightly* concave or convex glasses"; but if the principle does not hold for a glass of six inches focal distance, it would hardly be trusted for weaker ones.

In the above communication, it is not intended to question the existence of relative accommodation, but only the propriety of determining its amount by the method of looking with both eyes at once.

* Physiologie et Pathologie Fonctionnelle de la Vision Binoculaire, etc. Paris, 1861.

ON A NEW AND READY METHOD OF PRODUCING LOCAL ANÆSTHESIA.

By BENJ. W. RICHARDSON, M.A., M.D., F.R.C.P., Senior Physician to the Royal Infirmary for Diseases of the Chest.

SOME years ago I published in the columns of the *Medical Times and Gazette* some researches for the production of local anæsthesia by a process which I designated voltaic narcotism. Those researches, very much praised on the one hand, and very rudely and unfairly attacked on the other, failed in the end in leading me directly to any practical means of producing local insensibility applicable to surgical proceedings. The causes of failure were threefold. The apparatus required was cumbersome; the application was painful; the result was uncertain. In the course of the past year a similar series of experiments have been made by an Italian physician; but whether in imitation of my previous labors or in ignorance of them, I do not know: they have proved equally unsatisfactory.

The researches on voltaic narcotism, although practically of little value, were not in reality without their use. Previously to making them I was quite conversant of the fact—indeed, I learnt it from SNOW—that all the narcotics produced anæsthesia by the process of arresting oxidation; but I had still to learn what SNOW himself had not reached, that arrest of oxidation meant, in the end, arrest of motion; and that anæsthesia, in truth, means the temporary death of a part influenced—*i. e.*, inertia in the molecules of the part.

Learning this, I discovered that voltaic narcotism had at its base a fault. My idea in it was, that by quickening the circulation of a part by galvanic stimulus, and by applying over the part where circulation was quickened a narcotic solution which the blood could absorb, I could so charge the blood locally with narcotic substance as to produce local insensibility. In feeble subjects, as the result proved, local narcotism could, in this way, be temporarily set up; but it was always attended with a certain amount of disorganization. In strong subjects it failed altogether, because such of the narcotic as might be absorbed was carried rapidly into the general circulation. In plain words, by the use of the galvanic current, I was committing the paradox of applying a form of motion for the indirect production of inertia.

The failures I experienced at the period referred to in no degree lessened my efforts to find a practical means for producing local insensibility. They simply caused me to think more on the whole subject, and to invent new methods of inquiry. I came at length to the conclusion that Dr. JAMES ARNOTT'S plan of using extreme cold was the first true step in the progress of discovery, and that if it could be made easier of application, and at the same time could be combined with the use of a narcotic fluid, an important advance in therapeutics would necessarily follow. For full four years this truth

has been before my mind, and I have made numerous experiments with the view of demonstrating it. At one time I tried to freeze parts by the application of ice and salt, and then to inject by the hypodermic plan narcotic solutions into and beneath the frozen tissue. These experiments were never sufficiently satisfactory to allow of their publication. At last I hit upon a method which I am now about to describe, and which, although admitting of very considerable improvement, is sufficiently important to justify me in laying it before the profession.

THE ANÆSTHETIC SPRAY PRODUCER.

When the toy for diffusing eau de cologne in fine vapor over the skin, in the form of spray—which some time ago found its way into our drawing-rooms—first came before me, it struck me at once that it might possibly be applied to the production of local anæsthesia; and I set to work to try its applicability in this respect. I was soon afterwards assisted largely in my labors by taking advantage of Siegle's apparatus, with the hand-ball spray-producer invented by my valued friend Dr. Andrew Clarke, and supplied by the manufacturers, Messrs. Krohne and Scsemann, of Whitechapel road.

With this apparatus I set myself to determine the degree of cold that could be produced by the vaporization of all the known volatile liquids, and I determined the fact that the intensity of the cold produced held a definite relationship to the boiling-point of the fluid used; the rule being that the lower the boiling point the greater was the amount of cold exhibited. In these inquiries I employed a very delicate thermometer, directing the spray upon the bulb from half an inch to an inch and a-half from the point of the jet. By these means I learnt that with rectified sulphuric ether I could bring down the thermometer within 10 degrees Fahr. of zero, and that by directing the jet on the skin I could produce a certain definite and marked degree of local insensibility, but not sufficient for surgical purposes.

I next got Mr. Krohne to construct for me a hollow cylinder of thin metal, six inches long and three inches in diameter. In the circumference of this cylinder was a chamber one-eighth of an inch in diameter for containing ether. The ether communicated with a tube which was joined to an air-tube, as in Siegle's apparatus, and the centre of the cylinder was filled with ice and salt mixture. In this way the ether was reduced to zero, and when vaporized gave spray which brought down the thermometer six degrees below zero, and produced on the skin such entire insensibility that I could pass a needle through the part without sensation. On the 11th of December, 1865, I applied this process for the first time on the human subject for an operation. The patient was a lady, who required to have five front teeth extracted. I had previously administered chloroform to this lady for a tooth extraction, but the inhalation had produced

so much irregularity in the action of the heart and other disagreeable symptoms, that I considered it inadvisable to repeat chloroform, and she herself was only too ready to give the local measure a trial. The extraction was performed by my friend, Mr. Peter Matthews. On directing the ether spray first at a distance and then closely upon the gum, over the first central incisor on the left side, we observed, at the end of fifty seconds, that the gum had become as white as the tooth itself, and quite insensible. I then directed the vapor upon the tooth for twenty or thirty seconds more, and on the patient intimating that she did not feel, I suggested to Mr. Matthews to proceed. He extracted a very firm tooth without the slightest expression of pain. The process being continued in the same manner, he extracted three other teeth with the forceps. The other gave way, and had to be removed by the lever; but in all cases the result was equally good. Not a drop of blood was lost; there was no painful reaction; and the healing process proceeded perfectly. Our patient, who was exceedingly intelligent, was specially requested to note every step of the operation, such as the applying of the forceps, the insertion of the blades beneath the gum, the loosening process, and the removal. She told us that in two of the extractions she felt nothing; that in one it seemed as though the jaw altogether were being pulled downwards, but without pain; that in another she was conscious of a kind of wrench or loosening but without pain, and that the introduction of the lever was attended with a momentary dull ache, just perceptible. On the whole, the process was quite as painless as when she took chloroform.

On December 13th I applied the local anæsthetic to the same lady for the further extraction of nine teeth, Mr. Peter Matthews again operating. The results were equally good with the first seven, at which point, unfortunately, the apparatus partly ceased play. At the eighth tooth pain was felt, and at the ninth, the apparatus being out of play, the operation caused great pain. We regretted this much, although it gave us the information of the perfect action of the process when no mechanical obstacle interfered with it. The reason why the apparatus stopped play was very singular, and could hardly have been foreseen. It arose from the condensation of water derived from the air in the air tube, and from the blocking up of the fine jet with a little portion of ice.

In the next step of research I got Mr. Krohne to make for me an apparatus with two spiral tubes, one the air tube, the other a tube for ether; and I immersed these spirals in a closed chamber filled with ice and salt. The degree of anæsthesia at first produced was most intense, and Mr. Spencer Wells was good enough to allow me the opportunity of applying the process in a case where an operation was required for closing a perineal rupture. Unhappily the apparatus, from the very same cause as before, ceased to yield a current; water condensed and became frozen in the air-tube. The apparatus

itself was also found to be too cumbersome for practical purposes; I therefore, in this trial, failed to obtain any result.

By this time I had been led, very reluctantly, to the fact that the use of ice and salt for reducing the ether was a failure when the plan came to be tried in practice, nor could I see any ready way of preventing the difficulties that were brought before me. Added to these difficulties there was another, which has always attended my friend Dr. Arnott's plan, viz., that of getting the ice and salt readily for operation. To succeed, therefore, it was requisite to dispense with ice and salt altogether.

In considering how this object could be achieved, it occurred to me that if a larger body of ether than is supplied by Siegle's apparatus could be brought through the same jet, by mechanical force, in the same interval of time, and with the same volume of air, a proportionate increase of cold must necessarily be produced. The theory was one of pure physics, admitting even of arithmetical demonstration, and running parallel with the lessons which had been taught me with respect to the cold produced by liquids having different degrees of boiling point. The theory was put to the test at once, and proved correct to the letter. By driving over the ether under atmospheric pressure, instead of trusting simply to capillary action—or to suction, as in Siegle's apparatus—the spray evolved brought the thermometer within thirty seconds to four degrees below zero—the result that was desired.

Ascertaining this truth, I instructed Messrs. Krohne and Sese-mann to construct a proper apparatus. It consists simply of a graduated bottle for holding ether; through a perforated cork a double tube is inserted, one extremity of the inner part of which goes to the bottom of the bottle. Above the cork a little tube, connected with a hand bellows, pierces the outer part of the double tube, and communicates by means of the outer part, by a small aperture, with the interior of the bottle. The inner tube for delivering the ether runs upward nearly to the extremity of the outer tube. Now, when the bellows are worked, a double current of air is produced, one current descending and pressing upon the ether forcing it along the inner tube, and the other ascending through the outer tube and playing upon the column of ether as it escapes through the fine jet. By having a series of jets to fit on the lower part of the inner tube, the volume of ether can be moderated at pleasure; and by having a double tube for the admission of air, and two pairs of hand bellows, the volume of ether and of air can be equally increased with pleasure, and with the production of a degree of cold six below zero.

By this simple apparatus, at any temperature of the day and at any season, the surgeon has thus in his hand a means for producing cold even six degrees below zero; and by directing the spray upon a half-inch test-tube containing water he can produce a column of ice in two minutes at most. Further, by this modification of Siegle's

apparatus he can distribute fluids in the form of spray into any of the cavities of the body—into the bladder, for instance, by means of a spray catheter, or into the uterus by an uterine spray catheter.

When the ether spray thus produced is directed upon the outer skin, the skin is rendered insensible within a minute; but the effects do not end here. So soon as the skin is divided the ether begins to exert on the nervous filaments the double action of cold and of etherization; so that the narcotism can be extended deeply to any desired extent. Pure rectified ether used in this manner is entirely negative; it causes no irritation, and may be applied to a deep wound, as I shall show, without any danger. I have applied it direct to the mucous membrane of my own eye, after first chilling the ball with the lid closed.

I have now employed this mode of producing local anæsthesia in four cases on the human subject. The first case was the extraction of a tooth from a lady, the operation being performed by my friend and neighbor, Dr. Sedgwick, on January 24th of this year. On the 29th of the same month I used it again on the same lady for the extraction of three very difficult teeth, Dr. Sedgwick again operating. The results were as satisfactory as in the previous case, where the ice and salt ether apparatus was used.

I have used the apparatus also in connection with my friend Mr. Adams, who had a case at the Great Northern Hospital of deep dissecting abscess in the thigh of a young woman. In the abscess there was a small opening, which just admitted the director. I first narcotized around this opening, and the director being introduced, Mr. Adams carried his bistoury nearly an inch deep and one inch in the line of the director. I then narcotized the deep-seated parts, and enabled him to cut for another inch and a half in the same direction. The director was then placed in the upper line of the abscess, the process was repeated, and the incision was carried two and a half inches in that direction. The patient was entirely unconscious of pain, and after narcotizing the whole of the deep surface, Mr. Adams inserted his fingers and cleared out the wound without creating the slightest evidence of pain.

Afterwards, in the case of a lacerated wound, six inches long, in the arm of a boy, who had been injured with machinery, I narcotized while six sutures were introduced by Mr. Adams. The first needle was carried through without the anæsthetic, and caused expression of acute pain; the remaining eleven needles, after a few seconds' administration of the ether spray, were passed through painlessly. The twisting of the wire sutures gave no pain.

These results are so interesting that I make no apology for bringing them at once before my medical brethren. I wish it to be distinctly understood that at the present moment I only introduce the method here described for the production of superficial local anæsthesia. It is, I believe, applicable to a large number of minor ope-

rations, for which the more dangerous agent chloroform is now commonly employed—I mean such operations as tooth extraction, tying nævus, tying piles, incising carbuncles, opening abscesses, putting in sutures, removing small tumors, removing the toe-nail, dividing tendons, operating for fistula, removing cancer of the lip, and other similar minor operations which I need not mention. The process may also be applied to reduce local inflammation.

In course of time, and guided by experience and the advancement of science, we may, however, expect more. If an anæsthetic fluid of negative qualities, as regards irritation of nerve, and which has a boiling point of 75° or 80° , can be obtained from the hydro-carbon series, the deepest anæsthesia may be produced, and even a limb may be amputated by this method. It may also turn out that certain anæsthetics may be added to the ethereal solution with advantage, such as small quantities of chloroform, or some of the narcotic alkaloids, if they could be made soluble in ether. A solution of morphia and atropia combined, if they could be diffused through ether, which at present seems impossible, could thus be brought into action so as to cause deep insensibility. In operating on the extremities it would be good practice to stop the current of warm blood by making pressure above on the main artery.

Reaction from the anæsthesia is in no degree painful, and hæmorrhage is almost entirely controlled during the anæsthesia.

One or two precautions are necessary. It is essential, in the first place, to use pure rectified ether; methylated ether causes irritation, and chloroform, unless largely diluted with ether—say one part in eight—does the same.

The *modus operandi* of this process is exceedingly simple. It acts at first merely by extracting force, and afterwards, when the nervous filaments are exposed, by preventing the conveyance of force through them. To be plain, sensation means the conveyance of force or motion from the extreme parts to the brain. The motion is communicated by the blood in the form of heat: it is communicated to the nervous filaments, and by them is conveyed to the sensorium. This is passive sensibility. When we irritate a nervous fibre, as by a cut, we communicate more motion rapidly along that fibre and cause pain. This is active or exalted sensibility. To remove sensibility, therefore, we must adopt one of three processes: we must remove or render inert the sensorium; we must stop the evolution of force generally by arresting oxidation of blood; or we must rob the body locally of its force beyond that with which it is constantly being renewed. We see the first of these processes in action in cases of pressure on the brain, as from injury or effusion of blood; we see the second whenever we produce general anæsthesia by charging the blood with chloroform or other analogous anæsthetic; and we see the third when, by means of extreme cold, we rob the local part of the force that has been brought to it by the blood.

The problem of local anæsthesia will consequently be quite solved when by a rapid process we can exhaust the natural force of a part as fast as such force is evolved in the local structure; and especially when with this we can combine the action of a substance which for the moment controls, as by compression, the conducting power of nerve matter. These two latter objects are to a large extent carried out by the method I have described above.—*London Medical Times and Gazette.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 12, 1866.

OUR STATE CHARITIES.

THE intense interest which has been recently excited wherever the English language is read by the narration in a public journal of what was witnessed during a night spent in one of the great pauper establishments of London, and the popularity of newspaper articles concerning criminals and details of detective proceedings, considered in connection with the agitation produced not long since by a tale of fiction about an English lunatic asylum, illustrates how little is really known by the public of the ways and wants of the poor and vicious and insane, and how great, however morbid, is the popular curiosity concerning them. Were half this eagerness manifested in practical efforts to prevent crime and reform the criminal, which is now shown in painting it in false and dangerously fascinating colors and in hunting and hanging and screening him, society would be vastly happier and healthier. A true home picture of vice and crime, with all its details of brutality and misery, would be an effectual antidote to this unnatural craving for sensational writings.

It is well for the public that there are those who look upon this large class, the poor, vicious, insane and criminal, as objects of a different sort of interest and worthy of careful study, who believe that we are in part responsible for its present condition and may lessen its growth in the future. These views, which are based upon an investigation into the causes of these evils, and aim at prevention as well as reformation, are ably presented in the report of the Board of State Charities, recently issued as a public document. This commission was created but two years ago "to investigate and supervise the whole public charitable and correctional institutions of the Commonwealth, and to recommend such changes and additional provisions as they may deem necessary for their economical and efficient administration," and this is its second annual report. With that of the Secretary and General Agent of the Board it forms a volume of 450 pages, and is one of the most important documents ever published by the State. The gentlemen composing the Board are eminently fitted to fulfil the duties entrusted to them and fully sensible of their magnitude, as will be seen by the nature of the subjects to which they have devoted their attention:—

"1st. On the subject of Statistics.

"2d. Upon the importance of drawing the attention of the legislature and of the people to those natural laws and social conditions upon which so surely depend, in every community, the average duration of human life—the average number of working years in individual life—the numerical proportion to the whole population of the defective or infirm class—of the dependent or pauper class, and of the vicious and criminal classes.

"3d. Upon the importance of enlisting the people themselves in the direct work of social reform—of elevating the dependent classes, so that public charities and reformatory agencies may be lessened in number and contracted in sphere.

"4th. To show that the system of providing large public institutions for the permanent dwelling of special classes of the dependent is unsound in principle : that such establishments are only to be tolerated as a choice of evils ; and consequently that they should not be multiplied, and those existing should not be enlarged without pressing necessity."

These subjects are all most carefully considered and pointedly illustrated, and we wish it were in our power to give our readers an adequate idea of the important and practical conclusions to be drawn from them. We can only offer them a few extracts illustrative of the manner in which they are treated. The dependent and criminal classes are thus enumerated :—

"Massachusetts contains (in round numbers) about five hundred blind, four hundred deaf mutes, three thousand insane, twelve hundred idiots, and ten thousand paupers, who, with few exceptions, are supported by the public or by their friends.

"There are those who cannot support themselves, because of infirmity, or sickness, or feebleness of mind ; those who will not support themselves because they possess substance gathered by others ; and those who are idle from bad training or bad habits.

"Then there is the hideous army of drunkards, with its foul purveyors, whose ensigns are seen in our streets by day ; while at night the sad procession of fallen women walks abroad ; and the pestilent vermin that minister to evil passions and lust creep about in by-places. All of these are consumers, none of them producers : and most of them not merely cumber the earth, but require constant care of some useful workers.

"Then there are the destructives—the parasites of the body social—some of whom wander up and down, pilfering and stealing ; others sit and contrive ways and means for gambling, cheating, fraud and mischief of various kinds ; while others distil and deal out poison to keep the whole crew excited and active.

"All of this class destroy and waste, not only not giving anything back to society, but needing some of the working class to repress and keep them down, and circumscribe their work of destruction.

"These helpless, dependent, idle consumers, and destructives, number at least forty-five thousand ; and they make an enormous load which cannot be cast aside, cannot be left behind, but must be taken up and borne along by the body social.

"Nor is this all the load to be borne, for at least five thousand

workers must be employed in the care of these dependents. Nor even then have we counted enough, for of all the living, a considerable number are children or old persons who are under or over the period of life during which men earn more than they consume, so that they, too, have to be added to the great burden. * * * * *

"It would be a vain attempt to consider fully in a single report, or even in a volume, *all* the causes of the existence of such a large proportion of dependent and of destructive members in our community, and in every community. A brief allusion to some of them, however, may be pardonable here.

"The causes of the evil are manifold, but among the immediate ones, the chief cause is inherited organic imperfection—vitiated constitution—or *poor stock*.

"The vitiation or imperfection of the stock is mainly of two kinds. First, lack of vital force : second, inherited tendencies to vice.

"The first comes from poor nutrition, use of stimulants, or abuse of functions, on the part of the progenitors.

"The second comes from their vicious habits of thought and action.

"The first, or lack of vital force, affects mainly the dependent class, and lessens their ability for self-support ; the second affects more the vicious class, and lessens their ability for self-guidance."

Among these causes of vitiation in human stock alcohol is considered as one of the most prolific, and the effects of tippling and drunkenness are thus contrasted :—

"Drunkenness not only tends to shorten life, and, of course, the duration of procreative desires and powers, but it depresses the latter during the fit. Progeny, therefore, will tend to lessen in number. Moreover, if there is total abstinence during the intervals between the fits, the body may get into a normal condition by virtue of the tendency which alcohol has to be eliminated and to disappear rapidly from the system. There is a chance, therefore, that the offspring of occasional drunkards may escape alcoholic influences.

"On the other hand, alcohol taken continually in small doses does not sensibly shorten life, nor sensibly lessen the period of procreative desires and powers : the offspring, therefore, will not necessarily be fewer. But since the system is always under the influence of the poison, there can be no chance for them to escape its influence.

"Careful observation will, therefore, probably show that besides a numerical difference between the offspring of drunkards and the offspring of tipplers, there is also a difference of condition.

"Procreation during drunkenness is rare, but the cases where it is followed by fearful defects, deformities and passions in the offspring, are too numerous and well established to admit a doubt of the nature of the cause. We may expect in less-marked cases to find tendencies to mental disturbance, and to excitability which leads to passion and violence ; and may, therefore, expect to find offspring of drunkards tending to the criminal class.

"With tipplers, on the other hand, there is gradual vitiation and impairment of vital force. We may, therefore, expect that, other things being equal, their progeny will tend more strongly than the children of temperate people, or even of occasional drunkards, to fall into the dependent or pauper class, by reason of the cause mentioned

elsewhere as occasioning so much pauperism, to wit, original lack of vital force."

With regard to the provision for disabled soldiers, the report makes the following prudent suggestions :—

"We cannot be too grateful for the services rendered; too reverent of the memories of our dead heroes, or too tender and generous to those survivors who need sympathy and aid. But we must remember that the warmer is the public heart, the more need of right direction for its impulses. Many of our soldiers may need *homes*, but such homes as we ourselves need; and a great institution, with its congregation of one sex—with its necessary discipline and its monotonous life—never was and never can be such a home as our deserving veterans ought to have.

"Better the poorest hut in a retired hamlet, with its single family gathered round the hearthstone, where,

‘The broken soldier, kindly bade to stay,
Sits by the fire and talks the night away,’

than a showy building, set upon a hill, with its corps of officials, its parade of charity, and its clock-work and steam for doing domestic work so thoroughly that it is robbed of all its old and endearing associations. Unless some as yet undiscovered method is found to check the evil tendencies of all institutions which congregate persons of one sex, and substitute artificial for real family influences, soldiers' homes, or asylums, or refuges, will be likely to share the fate of like institutions in older countries. They will degenerate like the Invalides and the Quinze Vingts in France, and the Greenwich Hospital in England; and a succeeding generation will be occupied, as is the present generation abroad, in correcting their evils or cutting at their roots.

"There is danger, indeed, that our institutions may not start under as favorable auspices as did some of the foreign ones. They were at first filled with well deserving veterans who had been actually wounded, or blinded, or disabled in war. But the signs already portend that into ours will press hardly any respectable Americans, few deserving foreigners, but a multitude of 'bounty-jumpers and shirks,' who want to eat but not to work. * * * *

"Better have five hundred maimed veterans stumping about the towns and villages of Massachusetts, living partly on their pension and partly by their work, than shut up in the costliest and best structure that art could plan or money build."

One of the main objects of the report is to show the importance of separation and diffusion in the treatment of paupers and juvenile offenders, and the evils of the present system of massing are forcibly told :—

"It sometimes happens that there is a powerful, zealous, magnetic man or woman at the head of an almshouse, out of whom goes virtue enough to keep down the evil; but they are rare. Whatever may be done in large almshouses, by the aid of soap and whitewash, to keep down the pauper smell, there is no moral disinfectant strong enough to keep down the pauper spirit, if it once becomes the spirit of the majority, for it grows and intensifies with numbers; and it becomes so unwholesome and baleful that virtue can hardly be kept alive, much

less flourish and grow there. Even hope, which springs eternal in the human breast, springs not in the great almshouse, over whose gates might be written, as over those of a lower deep—

‘Leave ye all hope behind, who enter here.’

* * * * *

“If our State institutions were places for raising cattle or horses, experiments might be allowed, and the treatment might vary according to the theory of the superintendent. But it is time that we had settled upon some axiomatic principles of education; and that we should not be challenged to prove that, with the young, ‘evil communications corrupt good manners.’

“Massachusetts presents two schools for training up mechanics. The first is the ordinary family, scattered over a thousand hills; with the ordinary workshops in towns, villages and hamlets.

“The second is kept in three great almshouses and three reformatories. Those who have charge of the wards of the Commonwealth may select either of these schools. Some of them seem to believe that the latter is the best; and they will prove their faith by their works whenever they send their own sons and nephews there to learn a trade.”

The same plan of distribution is recommended as of equal importance in the management of deaf mutes and the blind, and the Board also advises the removal of the insane and idiotic from the almshouses to the receptacle at Tewksbury, and of all children and criminals from association with their inmates. The sanitary condition of these great “institutions,” which they think should be broken up, and of the State insane asylums, is carefully examined, and many judicious changes in their management are recommended. With regard to the state of the Bridgewater Almshouse, concerning which there has been some agitation, we find the following opinion expressed:—

“The continued prevalence of diseases of the eye, especially at the Bridgewater almshouse, has occupied the attention of the Board, and has been made the subject of special investigation, and of a special report.

“In substance, it is, that ophthalmia (a generic term for various diseases of the eye) has become endemic and persistent. It may be called the one disease, especially at Bridgewater. It gives more trouble, entails more expense, and causes more suffering than any one disorder. It necessitates the creation and maintenance of sore eye wards as a necessary and important feature of our State almshouses. Worse than all, it causes in many a life-long weakness of sight, and, in not a few, total blindness.

“The congregation of such large numbers of the pauper class in such close quarters, doubtless creates a strong disposition to develop ophthalmias. The effluvia vitiate the atmosphere, and affect first the exposed mucous membrane of the eye. But the effect of this might have been greatly diminished, if not entirely counteracted, by sufficient hospital accommodations. The lack of these, therefore, is the immediate cause of the evil, though the remote one is too much confinement to the house.

“The cost, in trouble to the officers of the institution and in suffer-

ing to the inmates, in consequence of the prevalence of ophthalmia, cannot be easily calculated, but it is very great. Then if we estimate that only twenty children have been rendered blind for life; that it will cost, at least, one hundred dollars a year to support each one of them: and that, on an average, they live twenty years, we expend three thousand dollars a year in the attempt to remedy an evil which might have been prevented by an outlay of twenty thousand dollars—a very high rate of interest, especially as the results of the attempt are unsatisfactory. The general conclusion is that there has been, and is, a great deal of pain and suffering which might have been spared.

* * * * *

“With respect to the disease and mortality at Bridgewater, a Committee of the Board having investigated the subject, I need not discuss it at any length. But, as my remarks concerning it a year ago were thought by the physician at Bridgewater to be unsupported by the facts of the case, I will quote his explanation of the great mortality there, from his Report for 1865:—

“The number of deaths in proportion to the number of cases treated may seem at first view to be large, but on close inspection of Table No. 2, which shows the causes of this mortality, no one can be surprised at the amount. There were twenty-nine deaths from consumption, thirteen from marasmus, eight from paralysis, seven from cancer, three from hernia, and sixteen from old age. Many of these cases of consumption, paralysis, cancer and hernia, had been previously treated at other hospitals, or by physicians and surgeons in private practice, pronounced incurable and sent here to die. Twenty-one died who had passed their threescore and ten years; of these, seven had passed their fourscore years; of these, three had passed their ninetieth year, and one lived to the extraordinary age of ninety-seven years.

“If proper allowance was made for these fifty-six cases of incurable disease, and also for the twenty-seven ‘foundlings’—for experience shows that three out of four of such children die before they have completed their first year—it will then appear that the mortality in this institution is no greater in proportion to the cases treated, than in other hospitals where such patients are not admitted. The larger number of consumptives which annually swell the list of mortality here in proportion to the like cases in other almshouses in the State, is accounted for in part by arrivals of Kanakas and Western Islanders from the whaling ships of New Bedford. The climate of this State is very unfavorable to this class of invalids. Besides, the statistics of the causes of mortality show that death from consumption is more frequent in the southeasterly counties than in other parts of this State.”

“These statements explain why the mortality should be great in *all* the almshouses, but I must be permitted to doubt whether they explain satisfactorily the larger mortality at Bridgewater, and for this reason: During the present year I made an examination of the register of deaths at Bridgewater, and found that while it was true that a great many persons died there of consumption, yet that the majority of these among the new-comers were from Boston, which city, with Roxbury, furnishes about *four sevenths* of all admitted at Bridgewater. Boston, also, with Cambridge, Charlestown and Chelsea, furnishes about *three sevenths* of the admissions at Tewksbury; so that, with respect to about half of the population of each of these two almshouses, there cannot be much difference in diseases peculiar to a locality. I found, also, that a very small percentage of recent deaths were Kanakas or Western Islanders—not enough to materially affect the statistics. I must, therefore, continue to believe that there is something unfavorable in the location or the hospital treatment at the Bridgewater Almshouse. * * * * *

“The law in regard to the admission of sick State paupers to the almshouses, while it has entailed a large expense upon the State, does not seem to have diminished the number of persons sent to the State Almshouses in a dying condition. Whether any further legislation is necessary, I would leave for your consideration.”

The report of the indefatigable Secretary contains a vast amount of interesting information concerning the state of all our charities and those of other countries, as well as a valuable chapter on pauperism, crime and insanity.

At a meeting of the Suffolk District Medical Society, held April 4th, the following officers were appointed for the ensuing year:—*President*, Dr. H. I. Bowditch; *Vice President*, Dr. J. Ayer; *Secretary*, Dr. C. W. Swan; *Treasurer*, Dr. J. N. Borland; *Librarian*, Dr. C. Ellis; *Supervisors*, Drs. G. H. Gay and F. H. Gray; *Commissioner on Trials*, Dr. S. Durkee; *Councillors*, Drs. J. Bigelow, S. Morrill, J. Jeffries, D. H. Storer, J. Flint, J. B. S. Jackson, J. Homans, A. A. Gould, A. A. Watson, E. Palmer, C. G. Putnam, H. I. Bowditch, H. G. Clark, J. M. Warren, G. C. Shattuck, C. E. Ware, S. L. Abbot, S. Cabot, G. Hayward, W. W. Morland, H. J. Bigelow, C. E. Buckingham, B. Brown, J. Ayer, F. Minot, J. B. Upham, G. H. Gay, H. W. Williams, C. Ellis, C. D. Homans, A. B. Hall, W. G. Wheeler (Chelsea), J. B. Forsyth (Chelsea), P. M. Crane (E. Boston); *Censors*, Drs. J. P. Reynolds, J. C. White, D. W. Cheever, B. J. Jeffries, H. F. Damon; *Committee on Social Meetings*, James Ayer, H. I. Bowditch, C. D. Homans, C. G. Page, C. Stevens.

Anesthesia by Freezing.—Since our extract from the *London Medical Times and Gazette* was in type, Dr. H. J. Bigelow has exhibited to the Boston Society for Medical Improvement a new agent by which the mercury is easily reduced to 15° or 20° below zero, instead of 6° below as by the process above described, and which seems to be greatly superior to the pure ether. We are promised a notice of this for our next number.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 7th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	43	40	83
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.0	40.0	81.00
Average corrected to increased population	00	00	88.23
Death of persons above 90	-	0	0

MARRIED.—In Marlow, N. H., April 4th, Dr. A. P. Richardson, of Walpole, to Sylvia F. Symonds, of Marlow.

DIED.—In Dexter, Me., March 15th, John B. Wilson, M.D., late Surgeon in charge U.S.A. General Hospital, Fort Gaines, Ala., aged 32 years. Dr. Wilson, though young in years, had won for himself renown in his profession. Leaving a good practice, he entered the army at the outbreak of the rebellion, and remained in the service until ill health compelled his return home. He served with credit as Medical Purveyor U. S. Forces in Texas, during the spring of 1864, and at this time contracted chronic diarrhoea, the disease which after two years suffering terminated his life. He was regarded as a reliable, prompt and thoroughly instructed medical officer, and from the soldiers under his care won a gratitude which will long keep him in remembrance.

W.

DEATHS IN BOSTON for the week ending Saturday noon, April 7th, 83. Males, 43—Females, 40. Abscess, 2—accident, 2—apoplexy, 2—ascarides, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 5—cancer, 1—cholera infantum, 1—consumption, 19—convulsions, 2—croup, 5—debility, 1—dropsy of the brain, 6—drowned, 2—scarlet fever, 2—typhoid fever, 2—gastritis, 1—hæmorrhage, 1—disease of the heart, 2—infantile disease, 2—insanity, 3—laryngitis, 1—disease of the liver, 1—inflammation of the lungs, 4—old age, 1—paralysis, 1—premature birth, 1—rheumatism, 1—scalded, 1—scrofula, 1—typhomania, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 33—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 15—above 60 years, 12. Born in the United States, 55—Ireland, 21—other places, 7.

THE

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No. 12.

CLINICAL REMARKS ON A CASE OF EXTRACTION OF CATARACT.*

Delivered Jan. 3d, 5th, 6th, 7th, 9th and 20th, 1863, by Prof. A. VON GRAEFE.

[Translated from the *Klinische Monatsblätter* for 1863, p. 141, for the Boston Medical and Surgical Journal, by HASKET DERBY, M.D.]

MRS. D., 64 years old, has a hard, ripe cataract in the right eye, an unripe one in the left. The external appearance of the eyes indicates no complication. The cataract of the left being unripe, fingers can be counted in 2', while the perceptive power of the right eye has been measured by means of our "graduated diaphragm." If we use an entirely darkened chamber, placing the diaphragm 8" (the distance which for the sake of uniformity we always employ) from the eye to be examined, and reduce the intensity from 100 to 1, the patient gives entirely correct answers till 4 is reached, but at 2 begins to be uncertain. This is exactly what we should expect when the cataract is ripe and saturated, as is here the case. If the diaphragm be set at 25 and moved from side to side, the patient follows it with the eye as accurately as could be expected, considering the diffusion of light. The question as to whether any considerable near-sightedness had previously existed, a question which—in view of the frequent combination of cataract with *sclerectasia posterior*—should never be omitted, was also answered in the negative. In a word, we have before us a so-called *cataracta simplex*.

* From a letter of Von Graefe to the Editors:—

"The case which forms the subject of this lecture is by no means an exceptional one. I am, however, of opinion that a description of those irregular complications that may occur during the healing process after flap-extraction, as well as an allusion to various points that are now, in this connection, receiving special attention, may be of use to the practitioner; and do not hesitate, therefore, to offer some such material to the '*Klinische Monatsblätter*.' The most assiduous observation and the most comprehensive experience avail of course only up to a certain point in answering the question why flap extraction is sometimes followed by unfavorable results, just as the problem in general surgery, as to why wounds, that show every disposition to unite by first intention, sometimes suppurate, is capable of an only partial solution. Still we may attempt to approximate to it by carefully noting and comparing the different circumstances influencing the patients, the eyes, the operation and the after-treatment in cases resulting favorably and unfavorably. And although I reserve for a special volume the results of my own experience in this connection, embracing at present 1500 cases, I am still disposed to take a few cases of flap-extraction to illustrate some clinical remarks bearing on this subject."

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I say intentionally *so called* ; for strictly speaking it may be said that all eyes, in which cataract is spontaneously developed, may be found to have undergone more or less change in other respects, particularly in the hyaloid membranes and vascular system : in fact, these changes may well come to be looked upon as the pathological point of departure of the cataract ; meanwhile, however, the very great differences in respect to recovery, which at present fill us with astonishment and make us almost lose confidence in ourselves—especially when we compare them with the results of traumatic affections of otherwise healthy eyes—these differences, I say, may be explained by a closer study of the nature of the anomalies which are at the bottom of the formation of the cataract. Such theorizing, however, carries us into an obscure future ; it suits our present purpose to limit *cataracta simplex* to those cases where we are unable to discover any affection of the deeper structures of the eye, and no break exists in the nervous apparatus.

Shall this patient be operated on at present ? There is certainly no valid reason for delay ; in fact, we hold it prudent to do the operation of flap-extraction on only *one* eye at a time,* and it is only in exceptional cases and under extraordinary circumstances that we depart from this rule. In one eye the cataract is ripe. Did the patient enjoy tolerable vision with the other eye, and could she gain her living, we might advise a postponement of the operation ; for three months, however, she has not been able to go about alone, which fact makes the recovery of sight a matter of prime necessity under any circumstances.

Let us now come to an understanding with regard to the *prognosis of a flap-extraction* in the present case. And first, as to the general state of the system. The patient, it is true, is only 64 years old, but prematurely marasmic. This is sufficiently shown in the deep wrinkles, the atrophy of the skin all over the body, particularly on the neck and backs of the hands, the scanty and thinly sown gray hair, the somewhat stooping form and a weight of 88 pounds to a height of 5 feet 3 inches. In my estimation, marasmus should exert a most unfavorable influence on the prognosis of flap-extraction, that which is premature more than that which legitimately belongs to the time of life.† But we find, moreover, in the eyes themselves circumstances which contribute to depress our hopes, namely, the deeply sunken position of the balls, the small corneal diameter, which we have just found to hardly measure $4\frac{3}{4}$ ''' , and a tremulousness in the muscles when the eyes are turned far in or out. A sunken position

[* In view of the difference of opinion on this important point, which has prevailed and to some extent still exists in this country, the translator would call attention to the accompanying passage from the excellent work of Wecker, now in process of publication :—

"The elementary principles of prudence indicate sufficiently the impropriety of performing the operation for cataract on more than one eye at a time. In the first place, the consequences of the first operation and the results which it furnishes are, for the surgeon, the source of valuable information with regard to the line of conduct he should pursue in the second. In the second place, no conscientious operator would consent to expose his patient to the risk of losing, at one cast, all hope of recovering sight, a thing which might happen after a double extraction, followed by accidents entirely independent of the operation itself, and determined by the imprudence of the patient or of the persons surrounding him."—*Etudes Ophthalmologiques*, tome ii. p. 255.]

† The opinion of some colleagues that extreme age does not exert a particularly unfavorable influence on extraction is most emphatically contradicted by my tables, which show after the 65th, and particularly after the 70th year, a considerable falling off in the percentage of recoveries.

of the balls has been particularly dwelt upon as an unfavorable circumstance, in so far as it interferes with the mechanical execution of the operation. Viewed in this aspect, I do not attach much importance to it, for when extraction is done downwards a moderate amount of practice enables us to overcome the difficulties in question. But an abnormally deep position of the eyes, depending, as it does in general marasmus, on the disappearance incidental to age of the fatty tissue of the orbit, is, it is somewhat probable, an unfavorable sign as regards recovery; in fact, it is very probably so when, coupled with it, is the second sign to which we have referred, the senile diminution in diameter of the cornea. Where such a combination exists we are almost sure to have collapse of the cornea after the operation; that peculiar form of collapse in which the cornea not only falls in, lies loose and in folds, but also exhibits a concentric shrivelling, the whole indicating that the corneal tissue is capable of but little resistance. Experience shows more and more that the loss of nutrition which is brought about by the flap-section is fraught with peculiar danger to such a cornea, and is followed not infrequently by total or partial suppuration. The same thing happens in the case of these thin and but slightly elastic corneæ, as in a plastic operation where the skin is thin, atrophic, and devoid of panniculus; a loss of nutrition that, under more favorable circumstances, would be perfectly supportable, giving rise to fears of suppurative destruction or entire necrosis, an unusual amount of contraction being observable in the skin as soon as separated from its original insertion. Finally, the third sign, viz., the nystagmic trembling of the muscles when made to exert their utmost contractile power, goes to show a senile atrophy of the muscular apparatus and to confirm our fears that the wound may not heal well. *It is thus made evident that the danger of a diffuse (necrotic) as well as of a defined (flap) suppurative process is extraordinarily great in the present case.*

The tendency, too, to *iritis* is decidedly greater in marasmic eyes (increasing, as it does, in proportion to the age). The hardness of the cataract tends to render this more probable, greater violence being done as it passes through the pupil. Still, I should not say that the affair promised particularly ill in this respect; for one of the cataracts is entirely ripe, from which we infer an entire and easy separation of it from the capsule, and have neither to apprehend difficulty or delay in the removal of the cortical masses, nor that any will remain behind—a fertile cause of *iritis*. Moreover, atropine brings about a complete dilatation of the pupil, a small border of iris alone remaining, and it continues well dilated for four or five days, a thing by no means universal with old people, and which indicates relatively less tendency to *iritis*. In order not to be misunderstood, I should here add that I consider the *iritis* following extraction as capable of classification under two heads—*transplanted* and *genuine*. The *transplanted* follows upon or becomes developed with the suppuration of

the wound, the latter either leading to a cell-growth, on the posterior surface of the cornea, which pushes into the pupil, or else the suppuration seizes upon the portion of the iris in the immediate vicinity of the wound, and thence invades the remainder of the iris and the ciliary region. The genuine iritis, which seldom comes on before the third day, and generally makes its appearance between the fourth and tenth, has no direct effect on the healing of the wound, but when of early occurrence may influence it unfavorably, though indirectly. This form alone was, of course, that to which we had reference, the transplanted variety having its own exciting cause.

Finally, it should be stated that the patient suffers from an old stoppage of the lachrymal passage and moderate epiphora, a circumstance which is shown from experience to somewhat diminish the chances in favor of the healing of the wound.

Taking all these circumstances into account, the general prognosis of flap-extraction must be here essentially modified. According to my reckoning, of a hundred cases of flap extraction 65 result favorably, by which I mean the gaining an acuteness of vision of at least $\frac{1}{4}$; if more than 75 years of age, at least $\frac{1}{6}$. In 15 of the remaining 35 a favorable result is attained by a subsequent operation, consisting either in an operation for secondary cataract, or in an iridectomy with an operation for secondary cataract; of the 20 that now remain about a third get at least vision enough to go about alone (acuteness of vision $\frac{1}{50}$ to $\frac{1}{30}$), a second third gain still less, and from 6 to 8 per cent. of all eyes operated on remain or become entirely blind; that is, deprived of all ability to distinguish objects (whether they have quantitative perception of light or no). This is the final exhibit, when I take into account all the cases of *cataracta simplex** where an operation seems indicated.

Under other circumstances much more flattering statistics could be shown; my own, for instance, would have been twice as good if I had only included the operations on the occupants of the private rooms of my infirmary, and omitted the poor patients, the majority of whom were operated on under very unfavorable circumstances. Far more favorable results, too, might be furnished by those practitioners who either employ another kind of operation in unfavorable cases, or decline such cases altogether, than by those who perform the operation of flap-extraction in all those cases in which an operation is not contra-indicated by the tenets of our science. Finally, I am convinced by my own experience that the recovery after extraction, like that after all surgical operations, is influenced by differences of climate. I therefore lay only a relative stress on the above statistics, and communicate them solely in order to furnish an average scale to the less experienced practitioner, who may wish to make a truthful statement to his patient of the chances of the undertaking; for the sake, moreover, of assigning to the present case its individual place on the general scale of prognosis.

As may be readily seen, the prognosis of extraction may be infi-

* The more marked cases of myopia were formerly excluded from the list; latterly, however, have been reckoned in, provided no amblyopic complication could be discovered before the operation. This seemed allowable because, contrary to anticipations, experience has shown the healing process to be in no wise unfavorably affected by the staphyloina posticum (provided the vitreous is not considerably changed).

nitely better in a single case than in the long run, and *vice versa*. Imagine a patient in the vicinity of fifty years of age, perfectly healthy, of an equable temperament, submissive, hopeful as regards his future, with a large cornea of $5\frac{1}{4}$ ", a cataract ripe for the last quarter or half year, and with soft cortical substance—the chance of success would here be exceedingly good, infinitely better than the given average. An opposite condition of things inclines the scale in the contrary direction, and thus is it in fact in the case before us. I should here hardly estimate the chances of immediate and entire success as more than even, while the chances of an ultimate recovery, to be obtained by a secondary operation, are as 2 to 1.

Is, then, for this reason, another plan of operating to be selected? The hardness of the cataract forbids the thought of discission, an operation, indeed, seldom advisable in advanced age; nor are we likely to choose linear extraction, with or without iridectomy, an operation which, in cataracts as consistent as the present, does too much violence, leaves cortical substance behind, and is followed by chronic iritis, which generally invades the ciliary region. Our sole choice, therefore, lies between flap-extraction and reclination. The chance, on the whole, after reclination is very unfavorable compared with that after flap-extraction. If the average success following the former is to be reckoned as at least 80 per cent., that belonging to the latter is at the outside 50 per cent. Still, a fair field for reclination might be found in those cases where the individual circumstances cause the chances of extraction to fall considerably below the average. It is, however, in this connection to be regretted that most of the physical objections which, in a given case, apply to flap-extraction, may be urged with equal or greater cogency against reclination. Thus it is, for example, with certain complications which have been actually brought forward as contra-indications to flap-extraction, for example chronic choroiditis with a fluid condition of the vitreous. Their existence, of course, interposes a serious obstacle in the way of extraction, but a still greater one in that of reclination. Supposing, then, an operation to be advisable, they are not to be considered as contra-indications to the former, but simply as unfavorably modifying the prognosis. The same is true, though perhaps not so emphatically, of marasmic eyes like the present, unable as they are to long endure the irritation set up by the displaced lens, the tendency being to the development of chronic cyclitis or deep-seated inflammations, attended by increased secretion and ending in excavation of the optic nerve, the whole contributing to establish a prognosis for reclination much below the average. In my opinion, reclination is to be regarded as an incontestably proper though exceptional procedure in those cases where the general state of the system renders the healing of the wound doubtful, and where the danger of choroiditis or of inflammation with hypersecretion does not increase in the same ratio. After all, a too exclusive predilection should not be allowed to turn

the scale in balancing chances. Signal as seems in the light of to-day to be the blunder of submitting to the insidious operation of reclinatio an eye which offers an average or even better prospect of success from extraction, there yet remains scope for the exercise of some choice or preference on the part of the operator in cases like the present; where extraction offers a decidedly diminished chance. And although in the case of our patient extraction seems on the whole more advisable than reclinatio, we should readily comprehend and in no wise find fault with the course of any colleague who employed by preference the needle.

Flap-extraction having once been determined on, we have to decide whether to *precede it by an iridectomy*, or perhaps combine the two operations. What advantage is to be gained by combining an iridectomy with a flap-extraction? Does it ward off the danger of *diffuse suppuration of the cornea*, a process occurring as a general thing between twelve and twenty-four hours after the operation, and characterized by profuse secretion, appearances of swelling and the rapid formation of a purulent infiltration encircling the entire cornea, and premonitory of necrosis of this structure? Not in the least. We have seen this very thing occurring in the same manner and running the same course in cases of extraction where the precaution of making an artificial pupil had been adopted. Only in proportion as the presence of the coloboma renders the mechanical execution of the operation in itself more easy, can it be said that an indirect influence has been exerted on the occurrence of the above process.

Does the presence of the coloboma afford any protection against *defined suppuration*, the symptoms of which generally make their appearance somewhat later (eighteen to thirty-six hours), are otherwise externally similar to those of diffuse suppuration, except that the secretion is less abundant, and after having been poured out for the first time somewhat diminishes, in which, however, the suppurative process confines itself to the vicinity of the wound or the corneal flap, and at the most exhibits a tendency to send a ring-shaped infiltration into the uncut portion of the cornea? This query, too, must be answered in the negative. Since the time that I have combined iridectomy with extraction to meet various indications, I have not noticed any influence of the procedure (making again the same allowance as above for its effect on the act of the operation) on the occurrence of defined suppuration of the wound, but have, however—and this is a very important point—on its *course*. The principal danger of defined suppuration, always supposing it does not ultimately become diffuse, lies not so much in the destruction of the cornea, as in the iritis transplanted from the wound (see above). The masses of pus make their way into the anterior chamber, the iris becomes the seat of suppurative swelling, and this transplanted suppurative iritis exhibits a peculiar tendency to invade the ciliary region, and thus lead to irrecoverable loss of sight from ciliary exu-

dations and atrophy of the bulb. The existence of a coloboma of the iris does not, it is true, remove the possibility of such an invasion, but is undeniably efficacious in hindering its progress. The process attains a diminished height, union of the edge of the pupil with the capsular cavity takes place more quietly and frequently to a less extent, and purulent cyclitis fails to make its appearance in many cases, where, but for the coloboma, it might have been expected.

Does the iridectomy afford any protection against *general iritis*, the development of which is in most cases owing to contusion of the iris during the operation, or to the leaving behind of cortical remains? To a certain extent, we need not hesitate to answer this in the affirmative. The protection furnished is, of course, by no means absolute; genuine iritis, however, is less frequently observed where iridectomy has been done in advance, and when it does occur is, as a rule, less severe. It is plain that the amount of contusion inflicted during the operation is less when a coloboma of the iris exists opposite the apex of the flap. And, where the amount of contusion is the same, an iris in which a coloboma has been made exhibits a lessened tendency to inflammation, and inflammation of it is less dangerous; on all sides, therefore, are favorable circumstances which give us an *a priori* ground for foreseeing the result which experience renders secure. It is, moreover, indubitable that iridectomy interposes a serious though not invincible obstacle in the way of a *prolapse of the iris*, and appreciably lessens the dangers of such a prolapse.

We have alluded in this connection only to the more common events that interfere with the healing process after extraction. There are others, more exceptional, however, in their character. To these belongs a disease which is clearly to be distinguished from genuine iritis—*iridophacitis* (observed six times in 1200 cases)—a state in which, while the inflammatory symptoms gradually increase, the whole capsular cavity becomes transformed—through hypertrophy of the intracapsular cells—into a bag of pus, while the iris at first plays but a subordinate part in the inflammation, and the ciliary region becomes only subsequently affected. In this category is, moreover, to be classed the affection to which I have given the name of *phagedenic wound-pustule*, and which may bring about a disastrous result as late as the third or even the fourth week; its occurrence, however, being fortunately even less frequent (four cases observed out of 1500). These processes are not, be it incidentally remarked, particularly affected by iridectomy. It accidentally happened that the most of our scanty observations were made on eyes on which a preparatory iridectomy had been done. Direct purulent infiltration of the vitreous, a thing that may develop itself after a loss of this humor or intra-ocular hæmorrhage, should also be reckoned in, were we making a careful statement of the things that might take place after an extraction, and not simply sketching their relation to iridectomy.

On a general review of the foregoing, it appears that iridectomy offers no protection against the occurrence of diffuse and partial suppuration, while on the other hand it does, in the case of the latter, go to ensure a more favorable course of things, and to a certain extent prevents the occurrence of iritis and prolapse of the iris. We may thence deduce the general principle that a portion of the dangers attendant on extraction are obviated by iridectomy, and that

this operation is therefore to be employed where such dangers are imminent. As regards the particular indications, I stated several years ago (*Archive of Ophthalmology*, vol. ii., part. 2, pp. 247-248, 1854) that iridectomy should always be done when the performance of the operation was attended with any difficulty; for instance, when, owing to the small size of the flap, to too small an opening in the capsule, or to too much adherence of the cortical substance, the lens did not slip easily out, but advanced with evident difficulty. Then I laid stress on iridectomy in cases where prolapse of the iris seemed probable, owing to unsatisfactory juxtaposition of the edges of the wound, to a tendency of the pupil to prolong itself in the direction of the wound. I do not, moreover, fail to perform iridectomy where entirely hard cataract exists in connection with a small pupil, difficult of dilatation; where cortical masses not yet completely ripe are with difficulty removed or have to be left behind, or where the former is true of a case of ripe cataract owing to the consistency and adherence of the cortical masses. Iridectomy, too, is to be advised in any case where the chance of a good union of the wound is small, because it may possibly contribute to a favorable result in the event of defined supuration.

Is iridectomy always to be combined with extraction? Were the dangers of the operation actually diminished thereby, and were the procedure itself unaccompanied by any drawbacks, it would seem as though the question must be answered in the affirmative. Let candor, however, be scrupulously observed. The thing is by no means without its drawbacks. In the case of very restless patients its simultaneous performance meets with some obstacles and is attended with some anxiety; on neither of which points, however, am I inclined to lay as much stress as does my good friend Mooren, who has recently in a very meritorious manner drawn public attention to the combined procedure. An iridectomy done some time beforehand has the one decided disadvantage of subjecting the patients to a double operation, prolonging their stay in the hospital, and of sometimes, through delay, destroying their moral courage; indeed, if the principle of a long interval be defended, it is often incompatible with external circumstances. More especially, however, is the fact undeniable that the vision of patients having a coloboma downwards and no accommodation, labors under some disadvantages—it not being necessary to regard cosmetic considerations with old people—when contrasted with cases where the pupil is central. These disadvantages apply less to the amount than to the distinctness of vision, and obtain particularly in instances where little irregularities of curvature or cloudy opacities of the cornea result in the vicinity of the wound after extraction, as not infrequently happens. These disadvantages are, to be sure, of minor consequence; inasmuch, however, as iridectomy directly benefits only the minority of operative cases, and it is exceedingly probable that its performance under favorable circumstances is superfluous, I am unable, after weighing the pros and cons, to pronounce in favor of its general adoption in cases of extraction. It gives me pleasure, however, to see it done by others,* because an evident advantage accrues to science from its general application and a conscientious determination of results.

* The proposition to *always* combine iridectomy with extraction was made some time ago, as may be seen by referring to the following passage from my writings (*loc. cit.*) published nine years ago:—"Were any one to conceive the idea of making a pupil upwards a few weeks before extracting, as was in fact proposed to me by several, the only objection I should have to offer would be that in the infinitely greater number of cases the thing is unnecessary, and would be hardly compatible with the limited sojourn of the patients. On the other hand, such a procedure might be defensible on the ground of safety and as a prophylaxis."

In the case of our patient, iridectomy is clearly indicated on the ground of probable suppuration of the flap.

It remains to decide whether iridectomy shall be done *at the same time* with the extraction, or shall *precede* it. The latter is, in my opinion, more judicious. Where the eye is unsteady its simultaneous performance is attended with certain practical difficulties or at least annoyances; also, with the disadvantage of a subsequent small hæmorrhage into the anterior chamber, which although in itself insignificant, may embarrass the third and fourth steps of a modified linear extraction, when iridectomy has been done as second act; moreover, while the recent formation of a coloboma certainly diminishes the tendency to a general iritis, the freshly cut edges of the coloboma do still incline to inflammation, resulting in union with the capsule, when irritated by the passage of the lens. These objections disappear when we find the coloboma ready made; the operation has then only its three usual steps, and is more quickly completed. I think that too short an *interval* should not be allowed to elapse between the iridectomy and the extraction. It is not advisable to do the operation within less than four, if possible six weeks of the other. Although the more evident signs of a tendency to irritability, consequent on iridectomy, may have disappeared, yet their traces may be observed in the redness of the parts met with after sleep, or in the minute infiltration in the neighboring portion of the cornea, revealed by oblique illumination; experience, moreover, shows that a too rapid succession of operations exerts a cumulative effect on circumstances disposing to inflammation, which, where the disposition to recovery is not a decided one, may give an impetus in the wrong direction. In short, if circumstances do not permit a longer interval than four weeks, I do the whole thing at one sitting, preferring this course, notwithstanding its disadvantages, to a double operation.

The poor patient whose case is in question is unable, owing to external circumstances, to lengthen her stay beyond what is absolutely necessary, still less to come back again. We have either, then, to do the iridectomy a week or ten days in advance, in contravention of the principle above established, or perform it simultaneously.

When, during the operation, unforeseen circumstances render necessary the performance of iridectomy, it forms of course the fourth step. Where the patient is restless, it is certainly attended with difficulty. Not infrequently too small a piece of iris is excised, the operator fearing to draw it too far forward, or dreading that an unexpected movement of the eye may give rise to dialysis or a loss of vitreous. Doing the operation, however, as the second step, immedi-

lactic." With people who have only one eye, I have invariably practised this procedure for several years, for although, where other things are favorable, the danger of suppuration or iritis is not imminent, yet it must be taken into account in every extraction, and the lessened probability of it which is brought about by an iridectomy seems to me to outweigh the objections already referred to, especially when we consider the disastrous consequence of a want of success.

ately after the completion of the corneal section, involves much less difficulty, and is of course to be advised in all cases where, as in the present instance, the performance of iridectomy had been previously determined on.

[To be continued.]

RHIGOLENE,*

A PETROLEUM NAPHTHA FOR PRODUCING ANÆSTHESIA BY FREEZING.

[Read before the Boston Society for Medical Improvement, April 9th, 1866,† and communicated for the Boston Medical and Surgical Journal.]

By HENRY J. BIGELOW, M.D., Professor of Surgery in the Massachusetts Medical College.

THE above name is proposed as convenient to designate a petroleum naphtha boiling at 70° F., one of the most volatile liquids obtained by the distillation of petroleum, and which has been applied to the production of cold by evaporation. It is a hydrocarbon, wholly destitute of oxygen, and is the lightest of all known liquids, having a specific gravity of 0.625. It has been shown that petroleum, vaporized and carefully condensed at different temperatures, offers a regular series of products which present more material differences than that of their degree of volatility,‡ and that the present product is probably a combination of some of the known products of petroleum with those volatile and gaseous ones not yet fully examined, and to which this fluid owes its great volatility. A few of these combinations are already known in trade, as benzolene, kerosene, kerosolene, gasolene, &c., all of them naphthas, but varying with different manufacturers. I procured, in 1861, a quantity of kerosolene§ of four different densities, and found the lightest of them, the boiling point of which was about 90°, to be an efficient anæsthetic by inhalation.¶ When it was learned here that Mr. Richardson, of London, had produced a useful anæsthesia by freezing through the agency of ether vapor, reducing the temperature to 6° below zero, F., it occurred to me that a very

* Rhigolene, from *ῥίγος*, *extreme cold*, to which is added the euphonious termination of most of the other petroleum naphthas.

† About three weeks after my first experiments with rhigolene, I first learned that Prof. Simpson, of Edinburgh, had lately employed "kerosolene" for this purpose.

‡ See Researches on the Volatile Hydrocarbons, with references to authorities, by C. M. Warren. American Journal of Science and Arts, July, September and November, 1865.

§ The kerosolene was furnished by Mr. Merrill, Superintendent of the Downer Kerosene Oil Co., South Boston.

¶ An account of these experiments may be found in this JOURNAL, July 11, 1861. Reference is made to them in a paper "On the most Volatile Constituents of American Petroleum," by Edmund Ronalds, Ph.D., in the Journal of the Chemical Society, London, February, 1865. Mr. Ronalds there states that "the most volatile liquid obtained by collecting the first runnings from the stills employed in the process of refining petroleum has a specific gravity of 0.666." He had also received a specimen of "kerosolene" from Prof. Simpson, of Edinburgh, at 0.633. It will be observed that the Rhigolene has a specific gravity of 0.625.

volatile product of petroleum might be more sure to congeal the tissues, besides being far less expensive, than ether. Mr. Merrill having, at my request, manufactured a liquid of which the boiling point was 70° F., it proved that the mercury was easily depressed by this agent to 19° below zero, and that the skin could be with certainty frozen hard in five or ten seconds. A lower temperature might doubtless be produced, were it not for the ice which surrounds the bulb of the thermometer. This result may be approximately effected by the common and familiar "spray producer;" the concentric tubes of Mr. Richardson not being absolutely necessary to congeal the tissues with the rhigolene, as in his experiments with common ether. I have for convenience used a glass phial, through the cork of which passes a metal tube for the fluid, the air-tube being outside, and bent at its extremity so as to meet the fluid-tube at right angles, at some distance from the neck of the bottle. Air is not admitted to the bottle, as in Mr. Richardson's apparatus, the vapor of the rhigolene generated by the warmth of the hand applied externally being sufficient to prevent a vacuum and to ensure its free delivery; 15° below zero is easily produced by this apparatus. The bottle, when not in use, should be kept tightly corked, a precaution by no means superfluous, as the liquid readily loses its more volatile parts by evaporation, leaving a denser and consequently less efficient residue. In this, and in several more expensive forms of apparatus in metal, both with and without the concentric tubes, I have found the sizes of 72 and 78 of Stubbs's steel wire gauge to work well for the air and fluid orifices respectively; and it may be added that metal points reduced to sharp edges are preferable to glass, which, by its non-conducting properties, allows the orifices to become obstructed by frozen aqueous vapor.

Freezing by rhigolene is far more sure than by ether, as suggested by Mr. Richardson, inasmuch as common ether, boiling only at about 96° instead of 70° , often fails to produce an adequate degree of cold. The rhigolene is more convenient and more easily controlled than the freezing mixtures hitherto employed. Being quick in its action, inexpensive and comparatively odorless, it will supersede general or local anæsthesia by ether or chloroform for small operations and in private houses. The opening of felons and other abscesses, the removal of small tumors, small incisions, excisions and evulsions, and perhaps the extraction of teeth, may be thus effected with admirable ease and certainty; and for these purposes surgeons will use it, as also, perhaps, for the relief of neuralgia, chronic rheumatism, &c., and as a styptic, and for the destruction by freezing of erectile and other growths. But for large operations it is obviously less convenient than general anæsthesia, and will never supersede it. Applied to the skin, a first degree of congelation is evanescent; if protracted longer, it is followed by redness and desqua-

mation, which may be possibly averted by the local bleeding of an incision; but if continued or used on a large scale, the dangers of frost-bite and mortification must be imminent.*

It may be superfluous to add that both the liquid and the vapor of rhigolene are highly inflammable.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

FEB. 12TH.—*Diphtheria*.—Dr. OLIVER reported the case. A child 12 years of age had been sick for ten days when first seen by him. There had been an exudation on one of the tonsils which had disappeared. Within the last three or four days a membranous exudation had made its appearance, so that when seen by Dr. Oliver there was a thick membrane on the right tonsil, extending to the soft palate and to the posterior pillar of the fauces, and considerable swelling of the neck of the same side. Three days subsequently, in the evening, the child began to be hoarse, and on the following morning the voice was nearly gone and the breathing much obstructed. Steam had already been resorted to, and in the hope of loosening the membrane the patient was made to inhale the spray of vinegar. After this considerable thick mucus was thrown off with some relief, but immediately a flapping sound was heard with each expiration. The face at once became very livid and suffocation seemed imminent. After endeavoring in vain to tear away the membrane with a sponge probang, trecheotomy was performed. Great relief to the symptoms followed, and the breathing remained unobstructed afterwards; death, however, took place thirty-six hours subsequently. The case occurred near the top of Beacon Hill, a locality about which cases of the disease had been rather frequent the last few weeks. Dr. Oliver remarked that this disease did not seem to prefer any particular season of the year, nor did it seem to be more frequent in low situations.

Dr. C. G. PAGE had seen lately in consultation (with Dr. Gray) a boy 5 years old. The case had not alarmed the parents until the night of visit, although the child had had "a cold" for three or four days. When first seen the dyspnoea was so great that death seemed imminent. The child was insensible; the mouth was opened with difficulty, and by the dim light at hand the tonsils were found very large, with a whitish grey deposit on the uvula: respiration stopped for thirty seconds after this attempt to examine the throat. Tracheotomy was immediately performed (at 4 A. M.), with at first great relief. Consciousness returned, and nourishment was taken, but on the afternoon of the same day the whole throat began to swell. There was some emphysema on the right side of the neck and chest. Death ensued twenty-eight hours after the operation.

The case was considered as croup when first seen, but the occurrence of diphtheria in the neighborhood, and the swelling of the throat

* The Rhigolene, from the Downer Kerosene Oil Co., may be obtained of Metcalf & Co., 39 Tremont St., Boston.

towards the termination of the case, threw some doubt on the correctness of the original diagnosis.

Dr. PAGE was struck in the eye while operating by a muco-purulent drop thrown violently out from the trachea, and had a mild attack of conjunctivitis a week afterwards.

Dr. WARE thought the diagnosis in young children sometimes very difficult. He had seen several cases of sore throat in the locality mentioned by Dr. Oliver, but in only one had there been a deposit on the tonsil, attended with great exhaustion. The constitutional disturbance generally was slight. He did not consider the simple fact of sudden death after apparent croup a proof of the existence of diphtheria. He had seen swelling of the neck with undoubted croup.

Dr. JACKSON said he had seen swelling of the glands and infiltration of the tissues of the neck in cases of croup before diphtheria was talked of.

FEB. 26th.—*Atrophy of the Bones of the Right Side of the Body, co-existing with Fracture of the Cranium on the Same Side.*—Dr. JEFFRIES WYMAN reported the case.

The bones here described were from a dissecting-room subject, the history of which is unknown. To the eye those of the two sides did not differ materially in size, though the ridges and tuberosities of the humerus were less strongly marked in the atrophied than in the normal bone. The differences in weight between the corresponding bones of the two sides are stated in the following table, in which the weight of each bone is given in grammes.

	Right.	Left.	Difference.	
Clavicle	18.9	22.1	3.2	
Scapula	59.2	82.7	23.5	
Humerus	114.8	182.0	67.2	
Radius	37.6	53.5	15.9	
Ulna	49.9	77.6	27.7	
Total weight of bones of arm . . .	280.4	417.9	137.5	
Os innominatum	139.5	161.2	21.7	} Left limb heaviest by 78.0. } Right leg heaviest by 9.9.
Femur	343.9	391.2	47.3	
Tibia	231.5	225.3	6.2	
Fibula	53.9	50.2	3.7	
Total weight of bones of larger limb	768.8	827.9	59.1	

The ribs of the two sides were almost exactly of the same weight, differing only by a few milligrammes.

From the above table it appears that the long bones of the right arm were 137.5 grammes lighter than those of the left, and those of the right lower limb were 59.1 grammes lighter than those of the left. The right tibia and fibula together were, however, 9.9 grammes *heavier* than the same bones on the left side.

Co-existing with the condition of things just described, was an old fracture of the cranium, about an inch in diameter, situated near the middle of the frontal bone, but just to the right of the median line. The fragments of bone, which had been driven inwards so as to press upon the right fore lobe of the brain, were completely consolidated.

The fact that the atrophy was confined to the bones of one side of the body, renders it probable that it was the result of paralysis. If this

last be ascribed to the injury of the head, then there would be the unusual occurrence of the injury and paralysis existing on the same, instead of on opposite sides, as is commonly the case.

FEB. 26th.—*Cerebro-Spinal Meningitis*; *Latent until twelve hours before death*.—Dr. D. W. CHEEVER reported the case.

"Miss —; 50 years of age; fair health. Complained Monday, Feb. 19th, of pain in foot, back and bowels, followed next day by nausea and vomiting, return of a pale discharge from vagina, menstruation having ceased one year previous. This discharge lasted three days.

"Wednesday evening, Feb. 21, 1866.—At 10 o'clock I saw her first; she had just gone to bed, having been up all day. Aspect a little flushed; pulse 100; nervous, irritable; complaining of bilious retching; no dejections for some days; flatulence, and pain in small of back. Ordered calomel and bi-carb soda.

"Thursday.—Two sufficient dejections; less retching and flatulence; aspect about the same; very nervous; restless: apparently exaggerates her troubles; much rheumatism in the family; complains of being unable to move freely, on account of her back, which is without feeling, she says, in lower part; somewhat painful; not tender; no paralysis of limbs or face. Eyes natural; no photophobia; hearing normal. Tongue moist, thin white coat; pulse 100. Ordered 10 grains Dover's powder; liniment to back, and hot drinks for diaphoresis.

"Friday, A.M.—Vomited Dover's powder, and continued to retch a good while, otherwise seems better. Skin moist. Tongue, thin, white coat. Pulse 80. A little desire for food. Says her back is better, and moves herself with more freedom. Ordered beef tea. 11, P.M., called to see her again. A very little delirious. Coherent on being roused. Complains that pain in back has shifted to nape of neck; restless, having had no good sleep for several nights. Tongue same; pulse 100. Skin soft and moist. Ordered one-fifth of a grain of morphia, and repeat, if necessary.

"Saturday, 9 A.M.—A bad night; restless; delirious; pain in nape of neck severe; jactitation; entire incoherency; vague apprehensions, seeking to avoid her attendants, creeping out of bed; moves limbs freely; no opisthotonos; pupils obey light; tongue brown and dry; pulse 130, weak and uneven; subsultus tendinum; urine passed voluntarily; abdomen not swollen; aspect of grave disease. Prognosis doubtful. Diagnosis, *Cerebro-spinal meningitis*, or *malignant typhoid*. 11 A.M., seen in consultation by a gentleman of large experience. To test the diagnosis from the history of the case, this was retailed to the consulting physician by a relative who had attended the patient throughout, and the case was closed with the events and treatment, up to last evening. The impression made on this gentleman was of a nervous case—probably, in a great measure, hysterical. On entering the chamber, he concurred with me in thinking she had but a few hours to live, and that the case was one of cerebro-spinal effusion. The patient was wholly insensible, lying on her right side, breathing heavily, but without stertor; covered with perspiration. Tongue brown and dry; mouth open. Pulse 160; very feeble and thready. Right pupil widely dilated and insensible to light; cornea looking as if breathed upon; left pupil natural, and responding sluggishly to light. Nothing abnormal in lungs, or heart; bowels soft

and not tympanitic; face a little drawn to right side; limbs not paralyzed. No opisthotonos; no petechiæ. In this condition she remained until she expired, in a convulsion, at 3 P. M.

No autopsy could be obtained.

The surroundings of the patient were of the best description. No other cases have been reported in that section of the city. And she herself was in average health the week previous, and up and about her chamber sixty hours before death. Can any other solution of the problem be offered so probable as cerebro-spinal meningitis?

Hospital Reports.

EXTRACTS FROM THE RECORDS OF THE ALBANY CITY HOSPITAL. BY G. TRESKATIS, M.D., LATE HOUSE PHYSICIAN AND SURGEON.

Hysterical Paralysis.—Dr. VANDERPOEL, attending physician.—Eliza McG., æt. 39, married, born in Ireland. Is of delicate, anæmic appearance; accustomed to hard work. Admitted March 10th, 1865. Has always enjoyed good health till last fall, when she felt some weakness in the limbs of the right side, which, however, was not sufficient to prevent her from attending to her usual work. About the middle of February pain supervened, which ceased after the administration of iron and quinia.

Symptoms on Admission.—Is unable to raise the right elbow-joint to a level with the shoulder. Complains of pain in the deltoid region. Cannot extend the fingers of the right hand after they are shut, especially the third and fifth finger. When walking, drags the right foot after her, sweeping the ground, as if a heavy weight were attached to it. Complains of pain in the temporal regions of the head. Is unable to put the tongue out straight. There is some impediment in speaking. No weakness or pain exists in the right side of the face. Secretions are normal. Pulse regular, but feeble. Appetite and sleep tolerable. Perfect rest was enjoined.

March 16.—Was ordered a tablespooful of cherry wine three times daily.

March 18.—Pain in the temporal regions of head has increased. Was ordered ferr. et. quin. citr., gr. ii., twice daily, two small blisters over the neck, and the application of slight electric shocks daily for ten or fifteen minutes. Her bowels not being moved, an injection was ordered.

March 22.—Has somewhat improved. Speaks better, can raise the right arm higher. A small blister was applied to the neck.

March 28.—Continues to improve. Has no difficulty in raising the right arm over the shoulder; extensor muscles of hand are stronger. Headache has disappeared entirely. Bowels remain constipated, have to be relieved every other day by an injection. A small hard swelling has appeared on the angle of the left jaw, which disappeared soon after external application of tincture of iodine.

April 10.—Electricity discontinued. Complains again of headache. A small blister was applied to the neck for several nights, which gave her great relief. Bowels have to be relieved by injections.

April 14.—Was accidentally frightened in the preceding night. Became very restless and nervous. Obstinate vomiting and sleeplessness followed, with severe headache and cold perspiration. Pulse slow and feeble. Fer. et quin. citr. was discontinued, and assafoetida, gr. x., ordered to be taken at bedtime. After these symptoms ceased, application of galvanism resumed and Huxham's tinct. ʒi. 3 times daily ordered.

May 4.—Has severe headache commencing at 5 P.M., which yielded, after two days, to the administration of quin. sulph., gr. v., at 4 P.M. Paralysis of the limbs of the right side has now disappeared entirely, only great weakness remains.

May 11.—Has recovered entirely; has no headache nor any difficulty in speaking. Is able to grasp things with her right hand, walks perfectly, and drags no longer the right foot behind. Bowels are relieved naturally. Was ordered quin. sulph., gr. i., with ammon. spir. aromat., gtt. xv., three times daily. Her pupils were dilated unusually for three days, but returned again to the natural size. Patient left the hospital May 20th, having recovered entirely. She is at present engaged as a servant, and enjoys good health.

CASE II.—*Diagnosis obscure.* Dr. VANDERPOEL, attending physician. Fred. A. P., aged 19, born in United States. Admitted to hospital April 7th, 1865.

History.—Was enticed by bounty brokers to the city, drugged with liquor and then abandoned.

Symptoms on admission.—Is unable to move the lower extremities; there is some tenderness over the whole body. Pulse and secretions are normal, eyes dull, tongue somewhat white, seemed to be in a state of apathy and dulness; when questioned gave no other answers but "yes, sir," or "no, sir." Was ordered quin. sulph., gr. i., three times daily.

Progress of the case.—Patient improved during the first week: could move his legs and walk to the closet. In the second week severe pain in back part of head and neck ensued; he vomited several times, and lost all appetite. Had rigors on the last three days of the week. Was ordered ferr. et. quin. citr., gr. ii., twice daily. In the third week pain in head and neck increased in severity, so as to cause him to cry out. Vomited several times in the latter part of the week.

May 1.—Had rigors in the evening.

May 2.—Severe pain in the back part of the head and neck. Pulse feeble.

May 3.—Vomited in the morning. Tenderness in right iliac region.

May 4.—Had rigors in the evening. Was ordered two-thirds of a grain of sulphate of quinine every four hours.

May 6.—Pain in neck and head is diminishing in severity. Pulse and appetite better. Tongue somewhat covered.

May 10.—Has improved continually since last entry. Appetite is good. Tongue clear, secretions regular. Is able to walk about.

Left the hospital perfectly restored, May 20, 1865.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, APRIL 19, 1866.

DR. SALISBURY'S DISCOVERY OF THE CAUSE OF INTERMITTENT FEVER.

It has come to be almost a matter of course in medical science that any one claiming to have made an important discovery is met at once by a counter-claim, by somebody who has anticipated him in every particular. There is either nothing in it, or it was known before. We ought not to be surprised, therefore, to find that the remarkable announcement of Dr. J. H. Salisbury, which we noticed some weeks since, that he had discovered the hitherto unknown cause of intermittent fever, has called forth a counter-claim. It is from the other side of the ocean, from France, that this claim comes. It is a discovery, it seems, announced so long since as August, 1864, and yet the medical world has been in profound ignorance of the fact until now! A few weeks since our editorial was made the subject of an article in the *Union Médicale*, and the discovery was laid before the readers of that journal as one of remarkable importance, and sure, if confirmed, to confer great distinction on the discoverer. The article has called out a communication from M. Lemaire, which the *Union* for March 27th publishes as follows:—

“It is with no less satisfaction that we enter a claim of priority concerning Professor Salisbury's discovery of the causative agent of intermittent fever, published in the last number but one. It ought never to be an ungrateful task to avow one's ignorance, to repair an error or omission; it is much more pardonable than bad faith or partiality. We make the *amende* here all the more cheerfully that it has for its object the investigations of a laborious and distinguished confrère, Dr. Lemaire, the author of the Treatise on Phenic Acid, to whom we give place to clear up the history of this question.

“In 1861, I demonstrated at the Museum of Paris to Professor Gratiolet, Doctors Senechal and Desmarests, assistants, that the gases which are disengaged from matters in an advanced stage of putrefaction always contain, in the vapor accompanying them, either spores or other germinal bodies of microphytes or microzoa. It is sufficient to condense this vapor by cold and to examine it under the microscope to demonstrate this.

“I published the result of my first researches in the *Moniteur Scientifique* of Dr. Quesneville in 1862, in the number for the 15th of October. I made use of this discovery, at that time, in that journal, to maintain that the miasms which give origin to marsh fevers, &c., are living organisms. This paper was republished in the first edition of my book on Phenic Acid.

“In 1864, leaving my laboratory, I went to Sologne with my friend Professor Gratiolet, to repeat my experiments on the miasms which are disengaged from the numerous swamps of that region. We chose those which were reputed the most unhealthy by the inhabitants.

“We condensed, by means of cold, at the height of a metre [about

39½ inches] above the level of the marshes, the vapor which was given off; we examined it by our unassisted senses, by reagents and by the microscope. We observed that at the moment of condensation this liquid contained spherical, ovoid and fusiform spores, as well as a great number of pale cells of different dimensions. We found a considerable quantity of very small, semi-transparent bodies, of which I described the forms.

“You will find the *résumé* of these researches, with others not less interesting on the same subject, in the *Comptes rendus* of the Academy of Sciences (sessions of 17th and 29th of August, 1864). I have published an extract from them in the second edition of my book on phenic acid, p. 188 and the following pages, and on page 355.

“I have much to say with regard to the work which you have noticed, but I reserve my remarks for a full memoir on microphytes and microzoa, for which I have been collecting abundant materials for many years.

“I have only wished to demonstrate to you that the honor of this discovery does not belong to Professor Salisbury. I hope that the information which I have given you is sufficient to clear up your mind on this point.

“The experiments of Dr. Salisbury offer nothing new except the discovery of the microphytes in the expectoration of the sick. It remains now to be seen if other experiments confirm this assertion of the learned professor.

I am, &c., J. LEMAIRE.

“The priority of the discovery is thus incontestable. To France returns all the honor of it, for the vegetable origin of these febrigenous spores is but negatively settled. May their pathogenic interpretation be confirmed, and our learned compatriot thus acquire a new claim to the acknowledgments of all the friends of science.”

So much for the claim of priority by Dr. Lemaire. In brief it may be stated to be, that in 1861 he demonstrated the presence of spores and other microscopic bodies in the emanations from putrescent matter; that in 1862 he suggested that fever-causing malaria is due to living organisms; that in 1864 he found microscopic forms of various kinds in the condensed vapor given off from an unhealthy marsh.

These observations are certainly extremely interesting and very important; so far as they go they confirm Dr. Salisbury's observations most fully and satisfactorily. But we contend that they do not transfer the honor of the discovery of the cause of intermittent fever from America to France, inasmuch as they stop short of demonstration. What Dr. Lemaire calls the only novelty in Dr. Salisbury's observations, contains, in our opinion, the great point of the discovery. Dr. Lemaire discovers certain bodies in gaseous emanations, and suggests that malarious diseases are caused by living organisms. Dr. Salisbury has done much more than this. He finds the bodies, eliminates certain distinct species, which he finds in different localities, examines the secretions of intermittent fever patients, detects the same bodies there, experiments with the poisonous algoid in a locality far removed from any spot where the disease had ever been known to exist, and actually *creates* in this way the disease in a number of persons! Perfecting his observations he is able to make out a number of species of these cryptogamous plants, and to discriminate those which give ori-

gin to remittent fever from those which produce intermittent. Surely he is entitled to some credit for all this. We would not deny to Dr. Lemaire any honor which his observations deserve. It is very plain that they had not produced much impression in Europe—if for no other reason, that a journalist in the same city announces Dr. Salisbury's discovery as a novelty of unusual importance, being at the time in complete ignorance of his compatriot's labors. At the same time we would remark that it is no novelty for intermittent fever to be *theoretically* attributed to an organic cause; but so far as we are at present informed, to Dr. Salisbury belongs the honor (if his observations are confirmed by others) of having *demonstrated*, and so made of practical importance, this wonderful discovery.

We would remark, in closing, that the original article in the *Union* was evidently based upon our editorial on the subject, although no reference to this JOURNAL appears. If the author had read the paper in full in the *American Journal of Medical Sciences* we are persuaded he would have seen very much more in it to admire and honor than it was possible for us to introduce into our pages.

The New Anæsthetic, Rhigolene.—Dr. Bigelow's communication in this week's JOURNAL is one of great interest and practical importance. The substance to which he gives the name rhigolene is probably the only known liquid which is capable of producing such powerful effects. Its great cheapness, its speedy evaporation without leaving behind any ill odor, and its very great convenience—enabling the operator to produce complete local anæsthesia without the loss of time, and the great inconvenience frequently accompanying anæsthesia by inhalation—make it of incalculable value to every surgeon. We are glad to learn that it will soon be supplied in quantity to the medical profession by the manufacturers mentioned in Dr. Bigelow's paper.

Chlorate of Potash in Ovarian Disease.—We have received from one of our most experienced practitioners the following note concerning the article by Mr. Craig, with the above title, which was published in a late number of the JOURNAL.

"I saw this article when it first appeared, in the *Edinburgh Journal*, and although I could see no explanation for the action of the remedy, and had no faith in it, considered it a duty to try that which certainly is harmless. Extirpation, at the best, is a doubtful remedy in certain stages of the disease, and if all the *fatal* cases were published, we could judge better how early to make use of it. Certainly, medical treatment is worth using at the commencement.

"About the first of January I began Mr. Craig's treatment with a patient whose girth has, up to to-night, been reduced thirteen inches; a sequence, and perhaps a consequence.

"A second patient has lost an inch in girth within three weeks. So slight a change as this may be accidental, and of itself would not be worth mentioning.

"Two others under my observation have, as yet, small tumors, and I am waiting to positively form a diagnosis before beginning the same course.

"These four cases, at some future time, you shall have the notes of, whatever may be their termination. I hope the statement concerning the first may induce other gentlemen to try the chlorate." B.

Elephantiasis of the Integuments of the Penis in a Negro.—We have received from John Mountford, 272 Clark St., Chicago, a photograph of an enormous enlargement of the integuments of the penis by elephantiasis, said to weigh sixty pounds. The unfortunate bearer of this burden is being exhibited to the medical profession from city to city, and photographs may be obtained from Mr. Mountford, by mail, for thirty cents.

THE appointment of Dr. J. THEODORE HEARD to the position of Surgeon to Out-patients at the Massachusetts General Hospital, which should have been announced several weeks ago, will be received with pleasure.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 14th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	46	21	67
Ave. mortality of corresponding weeks for ten years, 1856—1866	38.4	35.9	74.3
Average corrected to increased population	00	00	80.92
Death of persons above 90		0	0

ERRATUM.—*Messrs. Editors*,—In the communication on Relative Accommodation, in your last JOURNAL, page 215, line 16, the word "above" should be *about*. Will you please notice this, and oblige,
G. H.

65 Charles Street, April 11, 1866.

COMMUNICATIONS RECEIVED.—Putrescent Sore Throat.—Is Asiatic Cholera Contagious?—Surgical Cases from the Records of the City Hospital. Seventh Paper.—Visit to Kirkbride Insane Asylum.—Report of a Case of Cerebral Disease. We must ask the indulgence of our friends for the unavoidable delay which has occurred in publishing their communications, arising from the accumulation of matter on our hands.

BOOKS AND PAMPHLETS RECEIVED.—Gonorrhoea and Syphilis. By Silas Durkee, M.D. Third Edition.—Recent Advances in Ophthalmic Science. By Henry W. Williams, M.D.—Principles of Surgery. By William Canniff.—Transactions of the American Medical Association. Vol. XVI.—Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales. Deuxième année. 1865. Par M. P. Garnier. Paris.—Intramural Internists in Populous Cities. By John H. Rauch, M.D. Chicago.—The Application of Sutures to Bone in recent Gun-shot Fractures. By John Birkett. London.

DIED,—In Charleston, Vt., of fatal jaundice, in his 57th year, Dr. Elijah Robinson. Dr. Robinson was a highly intelligent physician, and much esteemed and respected, not only among the medical faculty, but by those who had been the recipients of his professional care. His death will be deeply mourned by a large circle of friends and relatives, while the loss to his bereaved family will be irreparable. His disease came strictly under the head of Fatal Jaundice, as reported by Dr. Budd in his last edition on the Liver, which strongly assimilated, in almost every particular, *yellow fever*—a very uncommon development of disease in this northern section of country, so remote from crowded cities.
D. A. R.

DEATHS IN BOSTON for the week ending Saturday noon, April 14th, 67. Males, 46—Females, 21. Accident, 2—anaemia, 1—apoplexy, 3—disease of the brain, 2—bronchitis, 1—cancer, 1—consumption, 16—convulsions, 3—croup, 2—diabetes, 1—diphtheria, 1—dropsy of the brain, 3—typhoid fever, 4—disease of the heart, 3—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 1—old age, 1—paralysis, 1—premature birth, 3—disease of the stomach, 1—disease of the spine, 1—syphilis, 2—tumor, 1—unknown, 7.

Under 5 years of age, 21—between 5 and 20 years, 9—between 20 and 40 years, 17—between 40 and 60 years, 10—above 60 years, 10. Born in the United States, 43—Ireland, 17—other places, 7.

THE
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IS ASIATIC CHOLERA CONTAGIOUS?

[Read before the Providence Medical Association by H. W. KING, M.D., Surgeon-General of Rhode Island, and communicated for the Boston Medical and Surgical Journal.]

THIS question is now of public interest, in view of the anticipated coming of the disease. Doctors disagree upon it. This is no new phase in the history of medicine. Doctors have disagreed as to the contagiousness of nearly all diseases which are most strongly influenced by epidemic conditions. It is so difficult to determine which is the prime source of disorder, when both contagious and epidemic causes are operating! Hospital gangrene, puerperal fever, yellow fever, scarlet fever, typhus fever, hooping cough, and plague were for a long time held in doubt, and finally, after hot dispute, quietly found place, one by one, in the list of contagious diseases.

Cholera is most prominent among those of which we are still in doubt, and about which we may dispute. I purpose briefly to examine a few of the reasons recently given to the public why some "physicians cannot believe cholera to be contagious," and to extend a few remarks upon the subject of contagion.

First. On board the steamship Atlanta, which brought the disease to New York last November, it was confined to the steerage during the whole passage. The fact that the disease did not spread to other parts of the ship is relied upon as evidence of its non-contagious character.—It would seem to me, better evidence of its non-epidemic character. This fact, which is thought too singular for a freak of contagion, has had its parallel many times in the passage of typhus fever to our shores, and no doubts are now entertained as to the contagion of typhus.

Second. The Emperor of the French, holding the destiny of the nation, "was permitted," recently, to visit the cholera hospitals of Paris, and did not take the disease. This act of the emperor is considered proof that both he and his medical advisers believed the disease to be non-contagious; that the possibility of his taking it was not even doubtful.—Does it prove so much? The French once had another emperor, who, with responsibilities as great upon him as ever rest-

ed upon his nephew, was permitted to cross a bridge at Lodi, swept by thirty Austrian cannon. Does this prove that he and his military advisers were satisfied that there was no danger in the passage? that the possibility of his being hit was not even doubtful?

Third. In India, where the disease has become naturalized, and has prevailed for a long time, the belief is universal that it is not contagious.—The same argument would prove the plague to be non-contagious, while we all hold the contrary. That too is a habitat of the East, and like views are entertained of it there.

Fourth. Cholera can be arrested in its progress by proper medication, and the question is asked, "Is this true of smallpox, or any other confessedly contagious disease?"—It may not be true of smallpox, but it is true of many other confessedly contagious diseases, among them itch, syphilis and porrigo.

Fifth. In cholera there is no definite period of incubation, nor any regular stages of development in its progress and decline, while it is asserted in all known contagious diseases these stages are generally clearly marked.—Is this statement true? Let us examine and compare it with the teachings of one of the best of American authors. Dr. Wood says of pertussis, "The period of incubation is from two to thirty days;" of measles, "from one week or less to three weeks or more;" of scarlet fever, "two or three days to two or three weeks;" and of typhus fever, "from immediately to several months." Each of these, in its progress and decline, is as irregular as in its development, and these are all well known contagious diseases. The period of incubation of the latter would seem indefinite enough to correspond with cholera or almost any other disease.

Sixth. "One attack of cholera furnishes no security against a second."—Neither does one attack of gonorrhœa, syphilis, porrigo, framboesia or itch furnish security against a second attack, and these are all contagious diseases.

Seventh. "Cholera remains quiet for a long series of years, almost constantly existing at the place of its origin, and does not extend beyond that region. Could this be true of any strictly contagious disease?"—It is true of the plague, and also true of typhus and yellow fever.

Eighth. It is stated that it is an established law of cholera that the prevalence of the disease is in inverse ratio to the height above the level of the sea, or large rivers, or bodies of water in the vicinity, and the question is asked, "Was it ever known or suspected that any such law of elevation existed in relation to any strictly contagious disease?"—I answer, it is known that the same law exists in relation to the prevalence of nearly all disease, both contagious and non-contagious. The exceptions are those diseases peculiar to mountainous regions. This idea, now advanced by Dr. Snow, was used by Dr. Rush in his argument against the contagiousness of yellow fever. It is answered by stating the fact, that the law of elevation in rela-

tion to the prevalence of disease follows the law of settlements. The population of the world is so distributed.

Ninth. "Cholera is uniformly checked in its progress by cold, and prevails most severely in hot weather. Smallpox, on the contrary, and other contagious diseases, which do not depend upon actual contact, prevail most severely in cold weather."

How is it with yellow fever? It is uniformly checked by cold; indeed, it requires a higher temperature for its existence than cholera. The question of the contagion of this disease has been more fully discussed than that of cholera, and the professional mind is generally settled in the belief that it is contagious. This brings me to a point where theory might be introduced into the argument. Do not all contagious diseases dependent upon corpuscular origin prevail most severely in cold weather? And do not all diseases dependent upon cryptogamous agency for their cause prevail most severely in warm weather? The prevalence of cholera in Russia during the winter might tend to prove one part of this hypothesis. The life of the sporule may have been protected in the underground huts, at a temperature where germination could go on, while in the clear, cold air above no epidemic cause may have existed.

The most of the arguments advanced to prove the non-contagion of cholera may be summed up in this simple statement: Cholera is not contagious because it does not follow the same law that smallpox does; reasoning as though smallpox were the type of contagious disease, and judging all other diseases by it. As well might itch be taken for the type, and other diseases judged by that. From what has been shown it would appear that cholera is not more anomalous than many other diseases known to be contagious, yet it is not contended that there is any general law governing contagious disease, for there is none. Each is peculiar to itself. There may be a resemblance in form, or kind of substance producing disease, that may be classified. We have contagious diseases that are known to be of animalcular origin, as scabies, dracunculus, pulex penetrans, &c. We have others that we know to be of fungous origin, as favus, syco-sis, porrigo, &c.; and others that we believe to be of corpuscular origin, as syphilis, hospital gangrene, smallpox, &c. In thus classifying we have a resemblance in the kind of *materies morbi* forming each class, and here the resemblance ends. As the disease produced by the *acarus scabiei* differs from that produced by the *filaria medinensis*, and as the disease produced by variolous matter differs from that produced by syphilitic matter, so may we expect cholera to differ from other diseases, though produced by the same class of contagious matter.

In many of the arguments upon this question of contagion there seems to be wanting a clear idea of the definition of the subject. The best definition that I have seen, and the one that seems to me to convey a near idea of what is generally understood by the word con-

tagion, is that given by Dr. Wood in his Practice of Medicine. In this, contagion is held to be nearly synonymous with infection, but contagion is allowed a broader signification, and to embrace the meaning of both terms, including contactual and remote propagation. An agreement in the understanding of terms, though we still might differ, would save many words in dispute. With the microscope we may hope some day to solve the mystery that now divides us. It seems no deeper hidden than was the poison of malaria before Dr. Salisbury discovered that, instead of its depending upon the decomposition of vegetable matter for its origin, it has its source in cryptogamic life. He or some one else may show that, instead of cholera's depending upon the "decomposition of filth," vegetable organism must exist in choleraic air, and that germ and human excrement are necessary for its growth.

INTERESTING CASE OF CEREBRAL DISEASE—TUMOR OF THE LEFT OPTIC THALAMUS.

[A FRIEND has kindly permitted us to print the following private letter, which will be read with much interest.—Eps.]

MY DEAR DR.,—The case of Mr. W. A. G.'s adopted daughter has proved fatal. The history is, in short, as follows:—She first showed some mental disturbance in June last; in July and August she was dull at times, at others excitable and wilful; at the same time she could not write well; then vision was disturbed. This was followed by a general affection of the right side of the body, arm, leg and tongue; the latter being thrust out obliquely. For the past two months the nausea, which has existed from early in the disease, has been very severe, especially in the morning. Pain in the forehead, severe at times, and occasionally giddiness, followed by loss of consciousness for about five minutes, never attended by convulsions. During one of these attacks, rather longer than usual, she died, November 27th.

The examination of the brain was made by my brother, Prof. Jeffries Wyman, yesterday, and the results were very interesting; they are, in short, as follows:—Nothing peculiar was observed until the ventricles were opened, when a larger quantity of fluid than usual escaped, of a natural color. On laying the ventricles fully open, it was seen at once that they were not symmetrical; the left was much larger than the right. The floor was rounded out, and the distinction between the optic thalamus and the corpus striatum of the left side was almost completely effaced. The plexus choroides of the left side ran obliquely across the floor of the ventricle over the rounded mass, and was quite different from that of the right; it formed, instead of the symmetrical V-shape, another \wedge , with one arm much longer and more oblique than the other. The fornix was pushed far

to the right of the median line; measured across the floor of the ventricle the left was $1\frac{1}{2}$ inches, and the other $\frac{1}{4}$ inch. In cutting through the mass, the corpus striatum (left) was pushed quite out from its natural position, and the disease seemed to be in the optic thalamus only, which measured $2\frac{1}{2}$ inches in depth and $1\frac{1}{2}$ inches in width, and was made up of a lardaceous-looking mass, which cut with much more firmness than the natural substance. The whole mass was as large as an ordinary sized hen's egg, and was somewhat of that shape.

I omitted to state that the layer of epithelium lining the left ventricle was thickened, and of a velvety, almost flocculent look, especially at its anterior part.

I send you this account of the case, which is quite interesting to me, and I doubt not will prove so to you. It is singular what a monstrous difference there is between the effects of a small deposit of apoplectic blood and this large mass of diseased matter coming on gradually.

Truly yours,

MORRILL WYMAN.

Cambridge, Mass.

CLINICAL REMARKS ON A CASE OF EXTRACTION OF CATARACT.

[Continued from page 238.]

JANUARY 5th.—Before proceeding to operate on the case of cataract recently referred to, I have the following remarks to make.

All so-called *preparatory treatment* is not only superfluous but mischievous, unless, indeed, there are special circumstances in the individual case requiring attention. The healing process, after extraction, goes on most favorably when the person operated on is in a high state of health, and is, so to speak, morally and physically well balanced. Even an active cathartic is to be shunned, the excitability of the patient being thereby increased. It is sufficient to induce a gentle evacuation by the use of castor oil, or some other mild laxative, the day before the operation. If we have a chance of previously watching the patient, it would be well to test the effect of a dose of morphine at least two days before the operation, in order to ascertain how the individual is affected by a drug we are so likely to subsequently employ, and which acts so differently in different cases.

A very important factor is the frame of mind of the patient, which may be such as to require encouragement. With many it is best to make no previous allusion to the operation. The course to be pursued must be left to the tact of the surgeon, who must lose no time in taking into account the imaginative tendencies of the patient. Experience shows that the patients who are free from care and full of hope do much better than those of excitable temperament and oppressed with anxious forebodings. During the operation, too, a word from the operator is, under many circumstances, of as much consequence as his manipulations. Avoid scolding or threatening, even

when patients misbehave themselves, for such a course seldom fails to depress their spirits and paralyze their self-control. Jocular allusions, calculated to abstract their attention from the critical moment they are passing through, often have a good effect. It is a well-known rule not to let the patients wait long for the operation, but to perform it as soon as possible after it has once been decided on. Bad weather or indifferent light should not be allowed to weigh as much with us as depression of spirits on the part of the patient.

Is *atropine* to be instilled before the operation? Objections have been raised to this, particularly by English surgeons. It has been argued that the iris, being drawn back by the mydriatic, becomes thicker, and hence more liable to be injured by the cataract knife. It has been even argued that no real object is attained, inasmuch as the pupil contracts again after the evacuation of the aqueous humor; and, finally, a fear has been expressed that the peripheric retraction of the iris may diminish the protection afforded the vitreous humor, and thus favor its escape. None of these objections appear to me well grounded. Even were the iris to increase in thickness as the pupil widened, it would be a matter of entire indifference; for if we take a case where extraction has been properly performed and examine the inner wound, it will be found that its are nearly coincides with the edge of the enlarged pupil, or that its diameter barely exceeds that of the latter. It will therefore be found, in cases where mydriasis is complete, that the iris is either outside of the inner cut, or else that only a narrow border of pupil falls within it, and that this cannot possibly be so thick as to come in contact with the point of the knife, which is either close to the inner face of the cornea, or has attained to a corresponding point on the other side. It is true that the pupil contracts again after the escape of the aqueous. Leaving, however, out of sight the fact that the contraction itself is less than if no *atropine* has been employed, we should remember that our object is not so much to enlarge a firmly closed pupil—the influence of which in preventing a facile exit of the lens was formerly unduly feared—as to render more easy the completion of the section, during which, of course, the mydriasis persists. Finally, the objection that the use of *atropine* increases the chances of a loss of the vitreous is neither theoretically plausible nor confirmed by experience. I am accordingly disposed not only to dismiss the objections against, but to positively approve the use of *atropine* the evening before the operation. It is unquestionable that the completion of the section is thereby facilitated, especially when the anterior chamber is narrow, for the iris is thus entirely or nearly withdrawn from the region of the inner cut. It moreover strikes me as of importance that after the re-secretion of the aqueous humor the mydriasis in part returns, a fact that may be demonstrated by instilling *atropine* into the eye of an animal, then doing paracentesis and awaiting the refilling of the anterior chamber. This secondary mydriasis has

some influence in averting a tendency to inflammation on the part of the iris. Finally, the paralysis of the ciliary muscle, persisting as it does after paracentesis, must be productive of good.

The operation itself has already been alluded to. We have yet to decide on the *direction of the section*. This paves the way for the general discussion as to whether extraction up or down offers the more advantages. Having once adopted the compressive bandage, the use of which brings with it the principal advantages of the upper section, I became more and more a partizan of extraction downwards, after having for six years practised exclusively the other method. My experience shows that an operation upwards and one downwards, each done according to rule, offer practically equal chances of success. Although, on the one hand, the average length of after-treatment of extraction upwards is three days less (twenty-one to twenty-four days' stay in the hospital), the percentage of prolapse of the iris, of iritis and of suppuration is the same; while, on the other hand, it must be conceded that partial suppuration does less damage in a case of lower than of upper section, the tendency to gravitate downwards being productive of evil results. It must further be alleged in support of the lower section that its employment renders it possible to do a greater number of operations strictly according to rule, the surgeon being less dependent on the docility of the patient, and even on that of the assistant. It is here in his power to prevent the flap from coming into rude contact with, or being everted by the lid, and to get rid of cortical substance without the introduction of instruments, &c., even when the patient has but little control over the movements of his eye. It is true that, with sufficient practice, the upper section gives very good results, even in cases where the eyes are deep seated, the patients unruly, &c.; still, the greater length of the operation and the danger of reversing the flap against the upper lid are disadvantages which, however skilfully they may be met, increase the amount of manipulation, interfere with the mechanical execution of the operation, and in a doubtful case may incline the scale in the wrong direction.

As is usually the case when the merits of different operations are under discussion, we have in the present case a variety of reasons for and against, the most of which experience has shown to be visionary. For instance, it has been alleged that vitreous was, by the law of gravity, more likely to be lost in extracting downwards. The reverse would be more correct. Vitreous escapes when the zonula or hyaloid are ruptured, a thing the less likely to happen in proportion as the exit of the lens and cortical substance is facilitated, which indubitably is true in the case of the lower section. It has been, moreover, asserted that corneal opacities, when they result, are productive of more disturbance in the case of the lower than of the upper section. Corneal opacities that amount to anything, however, only result from an exceptional condition of things, from prolapse of the iris or partial suppuration. The former would be accompanied by a dislocation of the pupil, which, in the general run of cases, had better take place above than below; while, in the latter, the pupil is either closed or contracted, and an iridectomy is indicated at any rate. It is also objected to the lower section that, if the edges of the wound are not in exact apposition, the border of the lower lid may

get in the way; such a malposition, however, seldom occurs, and would not be allowed to remain. Whichever method were employed, a portion of the iris would have to be excised, and perhaps some vitreous evacuated, both of which things are more readily done in the case of the lower than of the upper section. Where the operation downwards has been done according to rule, the flap lies in such exact apposition that the lower lid causes no derangement of the parts, even when the gaze is suddenly directed downwards. Since commencing the systematic employment of the compressive bandage I do not, even where the eyes are unnaturally prominent, hesitate to extract downwards. I do not, however, give myself out as an opponent of extraction upwards. By so doing I should disparage the excellent results which many operators have thus obtained, and even the results of my own previous experience. I have already admitted that the average length of after-treatment is less in extraction upwards, owing to the fact that in a case of lower section, where no bandage has been used, the vicinity of the wound is more apt to be irritated by the action of the lids than when the cut is above and thus protected. I merely wished to draw attention to the fact that the much-vaunted superiority of the upper section is in many respects visionary, and that its real advantage, which consists in the uniform protection and pressure afforded by the upper lid to the wound during its first union, has been fully compensated by the introduction of the compressive bandage, and can no longer be used as an argument against the other method, the execution of which is more rapid, and in which we are less dependent on the patient. And if the results are, as I do not dispute, on the whole equally good, the preference must be given to extraction downwards on account of the greater facility with which it is performed. At all events, I advise the expert as well as the neophyte, in the case of a restless patient, to extract downwards.

In our own case we have, moreover, a special reason for choosing the lower section, viz., the iridectomy we are to interpolate as the second step. With the upper section the excision of a piece of iris, corresponding with the apex of the cut, is a very ticklish thing, unless we are aided by entire tranquillity on the part of the patient. Otherwise the excision must be lateral, and we gain only a partial advantage.

We shall, in accordance with our usual practice, operate on this patient *in bed*. Although this position is not entirely convenient for the operator, the patient enjoys the advantage of the greatest possible amount of muscular relaxation, and has afterwards to make no change. Surgeons who operate on their patients sitting are compelled, when anything out of the way occurs, to get them to bed during the operation, inasmuch as in certain contingencies—such as escape of the vitreous—the horizontal position is indispensable. As we are to deal with the right eye, the operator must sit behind the head of the bed, unless he happens by some freak of nature to be ambidexter, or else during his medical education was influenced by a now exploded ophthalmic hobby and worked up a partial ambidexterity, for worked up it must be. The choice is free to all; still, being sworn foes to all surgical coquetry, we would remind those who plume themselves on ambidexterity that the creation of practical difficulties, when such might with entire propriety be avoided, is less a merit than an indiscretion. It is not likely that any surgeon would acquire a title to dexterity because he amputated one leg with the right hand and the other with the left, instead of so varying his position as to do both

with the right hand. The same holds with regard to ophthalmic operations, provided the principle of operating on the patient in a recumbent position be once adopted.

[To be continued.]

KIRKBRIDE INSANE ASYLUM.

To the Editors of the Boston Medical and Surgical Journal.

MESSRS. EDITORS,—A brief account of a visit to the "Kirkbride Insane Asylum," or Pennsylvania Hospital for the Insane, may perchance not prove uninteresting to some of your readers.

This hospital, one of the best if not the best in the country, is situated about four miles from the heart of the city, in a quiet and delightful suburban retreat. It was, as you know, in Pennsylvania that the first provision for the insane was made in America, and this hospital—the medical care the best, the grounds of the most delightful and picturesque style, and the buildings of the finest and most beautiful in the country—will attest the fact that Pennsylvania's interest for these sad ones has never flagged for an instant. The history of the institution is briefly as follows:—In 1752 there stood an old building in the heart of the now great city, which was used as an asylum for the insane. In 1756 a larger and better building was erected at the corner of 8th and Pine Sts., and given to the use of these unfortunate beings. This was used until 1841, when, on New Year's day, the transfer was made to the building now under consideration. At that time one hundred patients were removed, that being the total number of patients. To-day there are 304, with a provision for 450. During these twenty-five years there have been the following—

	Males.	Females.	Total.
Admissions	2421	2133	4554
Discharges	2268	1982	4250
Remaining	153	151	304

At the time of the transfer (1841) there was but one building, which accommodated the patients of both sexes. This building, together with the surrounding land, was purchased with the money accruing from the sale of lots near the site of the old hospital, which belonged to the institution. Nearly eight years ago it was thought best, by the able and efficient manager and superintendent, Dr. Thomas S. Kirkbride, to separate the sexes, and with indefatigable perseverance, industry and zeal he raised enough money, through the generous subscriptions of the philanthropic men of Philadelphia, to erect a magnificent building, which is now used exclusively for the males. These two buildings—that for the males and that for the females—are nearly three quarters of a mile apart, and both are situated upon grounds naturally teeming with beauty, and which have

been adorned and beautified still more by artistic taste and skill. The grounds I can describe but meagerly. There are 111 acres of land, 91 of which are devoted to gardens and pleasure grounds. There are 3 miles of carriage rides, and fully an equal amount of pleasant bricked or planked foot-walks. Besides the two buildings proper, and the necessarily accompanying outbuildings, there are two or three beautiful rustic little cottages, for patients of the wealthier and more refined class. There are workshops in which the industrious males can spend as much of their time as they see fit; there are libraries of an excellent character in each ward to instruct and amuse others; there are museums, in which are collected all sorts of curiosities of nature and art; there are picture galleries, in which even the sane can spend pleasantly many an hour; there are musical instruments of every description, to please and instruct; there are gymnasiums, bowling alleys, billiard tables and bagatelle boards almost without number. In short, there is scarcely anything calculated to amuse and instruct such a sad set of beings that this hospital does not afford.

Of the many musical instruments for the patients' use, I may mention that there are 20 pianos in the hospital, one of which is a curious relic, being the first piano ever used in an asylum for the insane in America. Among the pictures there is one masterly work of art, the great work of Benjamin West, of Christ Healing the Sick. This was given by the artist to the institution, and it has been to it a source of some \$30,000 income.

Four of the seven nights in the week are devoted to oral instruction, &c., to the patients. One evening is devoted to the reading of the Bible. Lectures on popular scientific subjects are delivered in a systematic course four times a week. Of no little interest is the magic lantern with its hydro-oxygen apparatus. This is 18 feet in diameter, and its exhibitions with dissolving views are of the most brilliant character.

The beneficent influences of this great asylum are daily more and more apparent. The unfortunate who are placed here testify to its excellent management, and the superintendent is rewarded by the consciousness that his good work is being felt and appreciated.

In my next I propose to give an account of the summer schools now in session at the colleges here.

Yours truly,

E. R. HUTCHINS.

Philadelphia, April 14th, 1866.

WE see it stated in the daily papers that spotted fever has broken out in Maplewood Female Seminary at Pittsfield, and that the pupils have been dismissed to their homes in consequence. This is the institution, it will be remembered, which suffered so fearfully from an epidemic of typhoid fever several years since.

Bibliographical Notices.

A Treatise on Gonorrhœa and Syphilis. By SILAS DURKEE, M.D., Consulting Surgeon of the Boston City Hospital; Fellow of the Massachusetts Medical Society; Member of the Boston Society for Medical Improvement; Honorary Member of the Medical Society of the State of New York; Fellow of the American Academy of Arts and Sciences, &c. Third Edition, Revised and Enlarged. With eight Colored Illustrations. Philadelphia: Lindsay & Blakiston. 1865. Pp. 467.

IN the number of this JOURNAL published September 1st, 1864 (Vol. LXXI., No. 5), we noticed the *second* edition of Dr. Durkee's Treatise. We have now to congratulate the author on the appearance of the *third* edition, issued by the same enterprising publishers—Messrs. Lindsay & Blakiston.

If the rapid exhaustion of the two previous editions be any proof of the popularity of the work with the profession, we certainly have it before us. The sale of the second edition has likewise been far more quickly effected than that of the first.

On the appearance of the first edition, it fell to our lot to review the work, and, to that end, we gave it a most thorough and impartial examination. Higher authority than our own, however, has stamped it with the seal of its heartiest approval; and both in this country and abroad it continues to attract marked attention. Its eminently *practical* character, as we have elsewhere stated, has put it into wide circulation, and has made its author not only most favorably known as a clear writer and reliable practitioner, but also, by consequence, to be constantly consulted by professional men, and often from remote localities.

The testimony of foreign medical journals is so flattering to the author, that we propose, at this time, to adduce such notice in place of any further remarks of our own.

The *London Lancet*, of March 3d, 1866, pays the following handsome tribute to our author's labors:

"Dr. Durkee's production is one of those the perusal of which impresses the reader in favor of the author. The general tone, the thorough honesty everywhere evinced, the philanthropic spirit observable in many passages, and the energetic advocacy of professional rectitude, speak highly of the moral excellence of the writer. Nor is the reader less attracted by the skill with which the book is arranged, the manner in which the facts are cited, the clever way in which the author's experience is brought in, the lucidity of the reasoning, the frequent and extremely fair allusions to the labors of others, and the care with which the therapeutics of venereal complaints are treated * * * * * Dr. Durkee's cases are especially important and very appropriately related in support of his positions. Those cases and the author's remarks upon them stamp him as an excellent practical surgeon (or rather physician, as the phrase goes in the States); and they leave the impression that patients going to America could very safely be recommended to him.

"Dr. Durkee has not the honor of having solved the puzzling problems, which, up to this day, have taxed the ingenuity of syphilogra-

phers ; but he makes the most of what is known, and applies it in a masterly manner to the treatment of the disease. In this latter respect he is extremely full, minute and clear.

"We may finally recommend Dr. Durkee's book as eminently practical, well written, full of excellent counsel, and worthy of being consulted by every member of the profession."

It is but rarely, we think, that foreign medical periodicals accord such unqualified praise to writers in this country.

A late number of the *London Medical Times and Gazette* also speaks of the book in terms of the highest approval, and pronounces it an able work.

The appearance of the volume as now presented to us is very elegant. The paper is most excellent and the typography unexceptionable. In all respects the present edition is a credit to the publishers ; and we trust that they, as well as the author, will be rewarded for the pains taken and the good taste manifested in the getting up of the work.

W. W. M.

Boston, March 28th, 1866.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D., Fellow of the Royal College of Physicians ; Physician to the Hospital for Sick Children. Fourth American from the Fifth Revised and Enlarged English Edition. Philadelphia : Henry C. Lea. 1866.

Of all the English writers on the diseases of children there is no one so entirely satisfactory to us as Dr. West. For years we have held his opinion as judicial, and have regarded him as one of the highest living authorities in the difficult department of medical science in which he is most widely known. His writings are characterized by a sound, practical common sense, at the same time that they bear the marks of the most laborious study and investigation. The fulness of his familiarity with other writers on the same subjects, and the numerous illustrative cases of his own, inspire the reader with confidence in him as a man thoroughly versed in the literature of his subject as well as practically acquainted with all its phases.

That our individual estimate of Dr. West's high position as a writer on infantile diseases is only the echo of popular acclaim, which has long accorded to him the same merit, is shown by the simple fact that the book before us has come to the fourth edition in America, the same in Germany, and that it has been translated into Danish, Dutch, Russian and French. Dr. West alludes to this fact in the preface to his last edition with modest complacency ; and he certainly has well earned the honest satisfaction which comes from such evidence that his toil has not been fruitless.

For twenty-six years Dr. West has enjoyed special opportunities of studying the diseases of children—first in the Children's Dispensary, and afterwards at the Children's Hospital in London. His recorded experience derived from these sources he sums up in the statement that "the present edition embodies the results of 1,200 recorded cases, and of nearly 400 *post-mortem* examinations, collected from between 30,000 and 40,000 children, who, during the past twenty-six years, have come under my care, either in public or private practice."

The work we are noticing does not pretend to be a comprehensive treatise on all the diseases of children, but is specially devoted to those diseases which, from their great gravity or the inefficient manner in which they are treated in similar works, call for greater fulness and preciseness. Thus we have nearly two hundred pages given to diseases of the brain and nervous system. About as many more are taken up by the diseases of the respiratory system, under which Dr. West discusses the peculiar difficulties of diagnosis in infantile phthisis, growing out of the lesser reliability of many of the auscultatory signs in children, or the obscure or different significance of some which are of grave import when occurring in the adult, or from the peculiarity of some of the signs which it presents in young subjects. These observations, which could only be supplied by a man of large experience, give a special value to this branch of his subject. A chapter on Diseases of the Heart follows, next the Diseases of the Organs of Digestion and Assimilation, filling about two hundred pages, followed in the six concluding chapters by Intestinal Worms, with Diseases of the Urinary Organs, Abdominal Tumors, Infantile Cachexiæ, Syphilis, Scrofula and Rickets, Fevers, Smallpox and its congeners, Measles and Scarlatina. We have not undertaken to review a work of such established merit as the one before us, but merely to call the attention of our readers to the present edition, which is enlarged by the author's experience since the preceding one was published. We commend it to all as a most reliable adviser on many occasions when many treatises on the same subjects will utterly fail to help us. It is supplied with a very copious general index, and a special index to the formulæ scattered throughout the work.

Contributions to Bone and Nerve Surgery. By J. C. NOTT, M.D., Professor of Surgery in Mobile Medical College. Philadelphia: J. B. Lippincott & Co. 1866. Pp. 96.

THIS matter-of-fact, though rather inelegant title, belongs to an essay devoted chiefly to the subject of necrosis. While it contains nothing new, it reviews carefully the subject of "bone pathology" in its relations to this disease, and advocates early operative interference, even though the sequestrum has not become loose; the author believing that exposure of the dead bone hastens separation, while exploration does no harm. For the next twenty years operations for necrosis must be among the most frequent which surgeons will be called upon to perform, and Dr. Nott's essay will undoubtedly do much good in familiarizing them with the principal features of this tedious and disabling affection. His experience among the Confederate wounded and his position as a medical teacher authorize him to speak *ex cathedra*. Unfortunately, all of us in time bid fair to become proficient in those chronic and lingering "gun-shot sequelæ" which Dr. Nott calls the "tertiary surgery" of wounds, as distinct from the "primary" and "secondary surgery" to which the earlier consequences belong.

The "nerve surgery" of this little brochure consists simply of two detailed cases of severe neuralgia—the one following a gun-shot injury, the other being caused by a neuromatous tumor.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, APRIL 26, 1866.

THE IMPORTATION OF CHOLERA.

IN the epidemics of past years the march, as it was called, of cholera was slow, and its approach from city to city could be calculated in advance with considerable accuracy. The warning that preceded it was sufficiently timely to allow the places along its future route to make leisurely preparation for its coming, and although it sometimes, as contagious diseases do, swerved from its course, the rapidity of its progress was generally uniform. It was slow to cross to this side of the vast body of water between us and the infected ports, and many a ship may have left the European shore with its germs aboard which head winds and want of proper soil for development may have rendered harmless before arriving. The disease rarely failed, however, to effect a passage sooner or later, and once introduced spread along our routes of travel with the same uniformity of march it had exhibited in the old world. In the later epidemics cholera has shown a more rapid progress; its course can no longer be called a march, it is a flight. It journeys as fast as man by rail and steam ship, and is thus carried from its starting point to distant localities, leaving intermediate states untouched. To reach us even here, it is no longer necessary that the vessel which brings it should have sailed from an infected port, for it is entirely consistent with our present knowledge of its laws of incubation that it should emanate from the central States of Europe, reach Liverpool or Havre by steam in forty-eight hours, and embarking thence not manifest itself in the individual with whom it has been travelling until mid-ocean is reached. It is probably in this way that it has already succeeded in touching our shores three times before establishing itself in England.

Within a fortnight two steamers have arrived at ports north and south of us with the cholera on board; the first at Halifax with 1200 passengers, among whom 160 cases and 50 deaths had occurred, the second at New York, bearing about the same number of immigrants, with from 150 to 200 cases and 47 deaths. The former left Liverpool on the 28th ult., and the disease first showed itself when six days out. The latter sailed from Liverpool on the 4th inst., and on the eighth day of the voyage a passenger who had had diarrhoea since the vessel sailed, became worse and died. On the same day two others were attacked, and the disease rapidly extended. The passengers in both ships were mostly Germans who had reached England but a day or two before embarking, apparently well. No cholera existed in England or Ireland. At or about the end of the first week the disease breaks out, affects about the same number of persons, and is attended by the same mortality. How then did the disease originate? The answer seems clear to us, for we have recent intelligence from Europe that the cholera has appeared with great virulence on the Rhine, and it is from its borders that a large proportion of our German immigrants comes, or by its waters reaches England.

Another circumstance of peculiar interest is noticeable in the character of the epidemic on both ships; in neither case did it extend beyond the steerage or affect the cabin passengers. This to our minds affords strong corroborative evidence of the communicability of the disease and of the correctness of the Snow theory, although it would be improper to reason from data of which we have at present so little exact information. In other instances it has been noticed that a local outbreak has been preceded, as in this case, by a diarrhœa not supposed at first to be choleraic and affording abundant means of spreading the contagion. The similarity in the time of its appearance after sailing corroborates what has been elsewhere observed with regard to its term of incubation under similar conditions.

There is a warning, however, which even those who do not believe in the communicability of the disease will unite with us in taking from the circumstances, viz., the necessity of immediately putting our city in order. The cholera, although once checked on the threshold by stringent quarantine in the case of the Atlanta, has again succeeded in effecting a landing at two points on our coast, and fresh arrivals may take place on any day at ports where the invasion may not be so energetically met and timely crushed. Once fairly ashore, it cannot be restrained. It may be brought to Boston to-morrow. Are we prepared to meet it? Has anything of importance yet been done to improve the sanitary condition of our houses, streets and surroundings? If so, we are ignorant of it. We hear of a thorough medical inspection which is to begin on the first of May, but why, we ask, wait a week when a single day may bring the disease upon us? It should have been completed a month ago, for inspection is only the first step, and in this case the easiest. The proper execution of the work will require months, and the hot weather has already revived in many localities the forgotten odors of last summer. What can a medical inspection effect in the case of such a pestilential quagmire as the Church street district? The whole profession has proclaimed the danger threatened, and the city is still waiting for the legislature, which has already spent more than two months in failing to decide who is to blame and who is to pay, whereas the question is, what shall be done? What if that body comes to the conclusion that it is the duty of the city to protect its citizens in their municipal rights and to remove dangerous nuisances within their own territory? Does the city government propose to wait another year? Every day the evil is increasing, and every day brings us apparently no nearer its removal. The matter certainly demands action from some new quarter, and is grave enough for the people to assemble and discuss in public.

Professional Criticism.—We have but very few words to say in relation to the communication from Boston which appeared in the last number of the *New York Medical Record*, and those are for our readers at a distance who may have read it and are not fully acquainted with the character of all whom it concerns. The gentleman against whom the extraordinary accusation it contains is made needs no word of defence from us. The facts in the case alluded to will of course be restated as they occurred, and the true nature of the article will then appear in its proper light. With regard to the *JOURNAL* an allu-

sion is made near its close, which we shall only notice for the purpose of representing facts as they are. It is there stated that the discussion is transferred from the field in which it occurred for three good reasons, "viz., that the question, having become a public one, belongs to the profession at large; that such, the only jury by which we stand or fall, is best reached through a journal of more than local circulation; and that for reasons stated on page 234 of the 16th volume of the American Medical Association Transactions, I could pursue no other course."

The Boston Medical and Surgical Journal has reached its 74th volume; it is one of a very few which survived the war, and was the only weekly in the country which appeared uninterruptedly during that period. It had more than a local circulation then, it has a larger circulation now. We lost no subscribers by closing our pages to a controversy of an unpleasantly personal character, and we certainly should have refused an article in such very bad taste, to use the mildest expression we can think of, and betraying such entire ignorance of the laws of physiology as that published in the *Medical Record*. We would recommend to that journal, which has attained its 4th number, the observance of a similar precaution, if it desires an equally successful existence.

MESSRS. EDITORS,—Thinking the suit recently tried in the Supreme Court, to which I was a party, in regard to the right of the physician to perform autopsies, of general interest to the profession, as it certainly was a novel one, I send you an abstract of the case from the Records of the City Hospital, and of the main points in the trial.

This was a suit *in tort*, with damages laid at \$5000, brought by Ed. Murray and wife against L. A. Cutler, Superintendent, and D. W. Cheever, Surgeon, of the City Hospital. The history of the case is as follows:—

"Peter C. Murray, æt. 5 years, was brought to the City Hospital July 4th, 1864. Three hours since he was accidentally shot with a slug fired from a fowling piece. The ball entered about two inches below and behind the anterior superior spine of the left ilium. No hæmorrhage after being brought to the hospital. The wound had been explored by another physician.

"The patient having been etherized, the wound was thoroughly explored by Drs. Cheever and Buckingham. The surface of the ilium was found bared of periosteum for a short distance, sinuses extended among the muscles in several directions, but the course of the ball could not be traced.

"The patient never had any disturbance of the bowels or bladder, nor was there any sign of peritonitis. The symptoms were those of great constitutional irritation, followed, after three days, by cerebral disturbance. On the fifth day he died, with convulsions, followed by coma.

"*Autopsy*, 14 hours after death. Body not emaciated; no 'rigor mortis.' Gun-shot wound two inches behind and below anterior superior spine of *left* ilium. In *right* groin a large ecchymosed spot.

"*Brain* much congested; sinuses distended; excess of serum in

both lateral ventricles, fourth ventricle, and sub-arachnoid cavity of the spinal canal."

"The ball was found to have passed through the ilium, opposite its point of entrance. It had not passed through the iliac fascia, nor entered the cavity of the peritoneum; hence there was no peritonitis. Sinuses extended upwards along the *psoas* muscle, as high as the last dorsal vertebra; downwards into the hollow of the sacrum, under the sciatic notch, and also down the posterior aspect of the thigh. The sinuses were filled with dark-colored, purulent matter, very offensive. Intestines and bladder healthy. No ball was found, though searched for in every direction, and further attempts were desisted from, from fear of too great mutilation."

The cavity of the abdomen and the head were closed in the usual way, and swathed with bandages. When the mother first obtained access to the body (prematurely), a ridge was evident across the forehead, beneath the skin, where the thin edges of the sawed frontal bone had slipped by each other. This was all the mutilation she or her friends saw, or could swear to, during the trial.

The plaintiff alleged:—

- 1st. That the child was carried to the hospital against her will.
- 2d. That it was kept there against her will.
- 3d. That she was, at first, denied access to it.
- 4th. That she desired a coroner's inquest.
- 5th. That she did not consent to an autopsy.
- 6th. That she was unwilling the head should be opened.
- 7th. That the body was needlessly mutilated.
- 8th. That, being then pregnant, the sight of it had hastened delivery, and that the health of both mother and child had been injured in consequence.

The defendants contended:—

- 1st. That she brought the child to the hospital, in her own conveyance, *suâ sponte*.
- 2d. That she was advised and urged to leave it there for the child's sake, but not forced to do so.
- 3d. That she was denied access to it only during the etherization and exploration; but that subsequently she was allowed to remain with it until it died, and was fed and lodged at the expense of the hospital.
- 4th. That the parties who fired the shot having been released by the Chief of Police, as it was found to be accidental, the authorities did not consider an inquest necessary.
- 5th. That *she requested* the autopsy.
- 6th. That she said nothing about opening the head until she saw the body, after the autopsy.
- 7th. That there was no mutilation of the body. That the autopsy was performed according to rule. That the existence of cerebral symptoms, and the violence attending the injury, rendered the opening of the head justifiable, even if she had objected. That the search for the ball was given up, for fear of mutilation.
- 8th. That the defendants were not responsible for the consequences alleged.

Judge Chapman ruled as follows, in his charge to the jury:—

"His Honor instructed the jury that there was no record of any case similar to this in the common law. The laws of the Commonwealth as to interfering with dead bodies are severe, and it is treated as a crime so to interfere, punishable and perhaps actionable, at least it was so to be considered for this case. It is common to have an autopsy made for the purpose of ascertaining the cause of death, though formerly there were many superstitious notions in regard to it, especially among the ignorant. The plaintiffs contended that the body of the child was mutilated without their consent and without any reasonable cause, and this was the question to be submitted to the jury. The child was sent to the hospital by the mother, as she testifies, for the purpose of having the ball extracted, and the jury were to judge whether it was an act of kindness to take it away or not. She also says that she consented to have the ball extracted after the death of the child, but this was only because she desired that the murderer should be found, and it was a question for the jury to determine what the defendants might do in compliance with such consent; whether the request to extract the ball with the view to find the murderer was not enough to warrant them in finding out the cause of the death, and everything which the public interest might require."

The jury, after being out about five minutes, returned a *verdict for the defendants*.

This decision is believed to be of importance, as tending to prevent the black-mailing of hospitals and public officers by any who can find a pretext of discontent with the result of treatment of their friends either before or after death. The case had been abandoned for the plaintiffs by two lawyers, and had been kept in court two years. The medical profession are indebted to Judge Chapman for his broad and liberal views.

D. W. C.

April 23d, 1866.

The Autopsy of Green.—Public attention has been so much drawn to the tiresome question of the culpability or responsibility of Green, the murderer, that it is a relief to read the results of the post-mortem examination of the head and brain as observed by Professor Jeffries Wyman.

Weight of brain	2 lbs. 8 oz.
Cerebrum	2 " 3 "
Cerebellum	5 "

"The average weight of the human brain according to Reid's tables is 3 lbs. 2 oz. Green's was ten ounces less. The average cerebellum is 6 oz. 3 drs.; Green's only 5 oz., but relatively to the cerebrum it is large. In the average the cerebrum to the cerebellum is as 8 to 1; in Green's case it is as 7 to 1. By the careful determination of the specific gravity of the brain it was found to be 1043—distilled water 1000. In this respect Green's was fully up to par. There was nothing else worthy of note to be found. The brain had a healthy look and firmness."

It will be seen by the above that the brain was small but healthy, nor was there any disease of the cranial organs. To follow to their logical conclusions the physiological arguments of many intelligent persons in this case, would relieve many a virtuous and wise man

amongst us of all personal responsibility, and doom him to the life-long confinement of an asylum. We hope if so much twaddle is to be expended in attempts to save another criminal, it may be in behalf of some poor fellow who was never allowed the possibility of moral development.

Nitro-Glycerine.—The terribly explosive properties of this dangerous substance have been illustrated by a painful coincidence of events in San Francisco and Aspinwall, by which many lives and much property have been destroyed. It is strange that similar accidents have not previously occurred in the mining districts of the Pacific coast. Nitro-glycerine, or glonoine, as it is sometimes called in medicine, is prepared by allowing glycerine to fall drop by drop into a mixture of equal parts of nitric acid and oil of vitriol, care being taken to prevent the temperature from rising too high. A heavy, oily looking liquid collects at the bottom of the vessel, which has a sweetish aromatic taste, and is a dangerous poison. A single drop placed upon the tongue produces a severe pain in the head for hours. Its formula is $C_6H_6(NO_4)_2O_6$, or for two equivalents of hydrogen in the glycerine two of peroxide of nitrogen are substituted. A drop placed upon paper and struck on an anvil produces a powerful concussion. Under circumstances little understood the friction of its particles among themselves even when frozen, or contact with some foreign substance, is sufficient to produce such effects as those below given. Its manufacture or storage in some parts of Europe is forbidden, and the Mayor of New York has acted wisely in causing the removal of all found in that city.

“The following particulars of the disaster are from the *Panama Star and Herald* :—

“Nearly, if not all the local freight of the European had been delivered, when about 7 o'clock in the morning of the 3d, a terrific explosion occurred on board, which tore away the upper parts of the ship and blew several large plates off the side. The wharf at which the ship was unloading, and which was some four hundred feet long, was literally torn to pieces; the superstructure was completely demolished to within a hundred feet of the freight house, and hardly a plank remained in the entire length of the structure that was not wrenched from its fastenings.

“Immediately in front of where the vessel lay, a gap was cut through the wharf, piles, planking, &c., all disappearing. The ship and wharf both caught fire, and the latter was saved from entire destruction only by the exertions of several citizens, who got the fire engine to work, and after a few hours extinguished the flames, regardless of the risk they incurred from another explosion of the burning ship. The Panama Railroad Company's splendid freight house is left a pile of ruins. The force of air caused by the concussion seems to have raised the roof—which was constructed of iron and slate—upwards a few feet, its own weight bringing it down with immense force into the building, and carrying with it both the end walls, leaving the house, excepting the side walls, which appear but little if at all injured, a mass of ruins. * * * * *

“The most awful part of the catastrophe was the dreadful loss of life and suffering attending it. Of the number killed and missing it is impossible to give a correct estimate; but from present data the

number may safely be put down at fifty, and is, we fear, more likely to prove over this number than under it. Of the forty-one men comprising the crew of the European, nine have been killed and twelve are missing.

"The scene in Aspinwall after the first explosion cannot be described—it was harrowing in the extreme. Whilst the ruins gave an air of desolation to the place, the mangled and lacerated bodies or pieces of bodies to be met with in every direction for a great distance around the ruin of the disaster were heartrending, and the suffering of the poor mortals crushed and bruised, in whom life was not extinct, was really dreadful.

"The amount of damage caused by the explosion is roughly estimated at \$1,000,000, which is about the lowest figure at which it can be placed."

Middlesex South District Medical Society.—At the annual meeting of this Society, held at Waltham, April 18th, 1866, the following officers were elected:—*President*, Anson Hooker, M.D. *Vice President*, Sam'l Richardson, M.D. *Secretary*, J. T. G. Nichols, M.D. *Treasurer*, B. F. D. Adams, M.D. *Supervisors*, Drs. L. E. Partridge, J. Pratt, H. Holmes. *Censors*, H. Cowles, H. H. Pillsbury, Morrill Wyman. *Commissioner on Trials*, W. W. Wellington, M.D. *Councillors*, Drs. E. F. Barnes, J. C. Dorr, J. C. Harris, Enos Hoyt, Theo. Kittredge, A. C. Livermore, L. B. Morse, J. T. G. Nichols, J. Pratt, Ira Russell, J. F. Wakefield. J. T. G. NICHOLS, *Secretary*.

THE International Ophthalmological Congress will be held in Vienna on the 25th of August, and the Committee, Prof. Jäger, Prof. Arlt and Dr. Gulz, desires to extend an invitation to oculists of all countries.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 21st, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	35	41	77
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.5	37.9	79.4
Average corrected to increased population	00	00	86.47
Death of persons above 90		0	0

BOOKS RECEIVED.—*Asiatic Cholera.* By F. A. Burrall, M.D. New York: Wm. Wood & Co.

MARRIED.—In this city, 9th inst., Dr. H. W. Mitchell, of New York, to Miss Sarah M. Dexter, of Boston.

DIED.—In Providence, R. I., suddenly, Dr. John A. Wadsworth, aged 72, one of the oldest physicians of the city. His name has been identified of late years with an improved instrument for the relief of prolapsus uteri.—In New York City, Joseph M. Smith, M.D., 77.

DEATHS IN BOSTON for the week ending Saturday noon, April 21st, 77. Males, 36—Females, 41. Accident, 1—anæmia, 1—apoplexy, 1—disease of the bowels, 1—inflammation of the bowels, 2—disease of the brain, 5—bronchitis, 1—cancer, 3—consumption, 15—convulsions, 1—croup, 2—cystitis, 1—diarrhœa, 1—diphtheria, 5—dropsy of the brain, 5—ship fever, 1—typhoid fever, 2—hemorrhage, 1—disease of the heart, 2—infantile disease, 1—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 1—malformation, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 3—puerperal disease, 2—rheumatism, 1—scalded, 1—scrofula, 2—unknown, 4.

Under 5 years of age, 26—between 5 and 20 years, 16—between 20 and 40 years, 16—between 40 and 60 years, 10—above 60 years, 9. Born in the United States, 62—Ireland, 10—other places, 5.

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THURSDAY, MAY 3, 1866.

No. 14.

SURGICAL CASES, FROM THE RECORDS OF THE CITY HOSPITAL,
BOSTON.

[Reported for the Boston Medical and Surgical Journal by DAVID W. CHEEVER, M.D.,
one of the Visiting Surgeons.]

*Seventh Paper.**—TWO CASES OF UNUSUAL FRACTURE.

CASE I.—*Fracture of the Pelvis; Recovery.* (Under the care of Dr. CHEEVER.)—April 28th, 1865. Mary K., aged 22; Irish; a house servant. The accident happened four hours before she was brought to the hospital. While engaged in hanging out clothes to dry upon the flat roof of a tenement house, she stepped backwards over the edge, and although catching at the clothes line, it ran through her hands, cutting her fingers, but not checking her fall. She fell four stories, to the paving stones of the street below. She struck mainly on the right hip and nates, and secondarily on the occiput, causing a lacerated scalp wound three inches long. When called, I found her conscious, but wearing the aspect of severe shock. She complained mostly of the hip and sacrum. Besides being a stout, fat woman, the swelling from effusion of serum and extravasation of blood was very great. Particularly behind the trochanter there was a great sac of dark extravasated blood, as large as the two palms, which was so thin and fluctuating that a future opening and suppuration could be safely prognosticated; a prediction which was ultimately verified by the formation of a large slough, followed by necrosis of the sacrum. A good deal of hard swelling and tension existed in the groin. The appearance of the thigh was not remarkable. There was neither marked inversion, eversion nor shortening. The trochanter rotated through a large arc of a circle. There was no crepitus during this manœuvre. The pain felt was referred mainly to the groin and pubes. She could not move the limb, which was not strange from the amount of bruising, even if no fracture existed. She could not pass her water. It was drawn off, and found to be dark colored, but not bloody. There was no laceration of the perinæum.

Not only the extreme violence of the accident, but the presence of

* See vol. lxxiii. p. 329.

severe constitutional disturbance made me apprehensive that there might be rupture of some viscus, in addition to injury to the pelvis. And as there was no evidence of displacement, it was thought prudent to let her alone until the following day, when she should have rallied from the shock. She was removed to bed gently, with a broad bandage around her hips. Stimulants and opium were freely given.

April 29th.—During the night she suffered severe pain in the hip, groin and foot, running down the course of the sciatic nerve. Prostration considerable. Urine drawn off; no blood. Swelling around right side of pelvis, great. She was now etherized for fuller examination. On inspection, being placed upon her back, with the heels together, nothing remarkable attracted attention about the femur. But the anterior, superior spine of the right ilium appeared less prominent than the left one. On further examination it was found to be flattened and movable; and crepitus was detected about an inch and a half behind the spine, between it and the so-called tubercle of Retzius. The line of fracture could be traced directly downwards, until it was lost under the *tensor vaginæ femoris* and *gluteus medius* muscles. An exploration *per vaginam* revealed a fracture of the right pubic arch, about midway, or near the natural line of junction of the original ossific centres of the rami of the ischium and pubes. This fracture was complete, and the ends freely movable. If the line of fracture were prolonged upwards, it would meet the fracture descending from the crest, in the neighborhood of the acetabulum. No injury of the sacrum or coccyx could be found. A farther rotation of the femur failed to elicit crepitus. There was no injury to the soft parts of the vagina or rectum. The pulse was rapid and irritable—the tongue brown and dry. Complaint of pain, severe. The broad bandage was re-applied. Perfect rest. Urine to be sedulously drawn off. Beef-tea and citric-acid drinks. Opium *pro ré nata*.

April 30th.—Required less morphia last night, although the pain was considerable. Pulse 112. Tongue brown and dry. Urine drawn off, and of same character. Excessive neuralgic pain if the pelvis is moved.

May 2d.—A little improved. Tongue cleaning a little on sides. Urine same. There have been no abdominal symptoms. No appetite. Milk and lime water recommended. Opium, when needed.

4th.—Urine contains a flocculent, mucous deposit. Bladder syringed out with warm water. No dejection since entrance. Cathartic pills.

6th.—Passes water herself. Eight days since accident. Improving.

11th.—Slough forming over sacrum. Dressed with lead plaster.

18th.—Deep slough over right half of sacrum, including peristæum. Dressed with dilute nitric acid. Pulse 120 again, and tongue dry.

19th.—Pain over sacrum. Pulse 100. Chill. Opening over sacrum laid freely open. Pain and tenderness in right iliac region.

20th.—Better, except that she cannot open mouth on account of pain in ear. P.M.—Pain in cardiac region. Sinapism.

27th.—Feels better every way. Sore over sacrum looks healthy, but dead bone can be felt.

28th.—Removed exfoliation from sacrum. One month since injury. Swelling abated. Doing well. Occasional attacks of vomiting and chills. Appetite improved.

June 2d.—Back painful; also pubes and genitals. The amount of neuralgic pain in the course of the obturator and sciatic nerves is very considerable and pretty constant, day after day.

9th.—Neuralgic paroxysm comes on every evening. Quinia tried without effect.

16th.—Pain chiefly referred to outer ankle.

19th.—Granulations have entirely covered sacrum.

20th.—One week short of two months. Sat up in a chair a few minutes.

26th.—*Two months.* Some shortening of right leg noticed, for first time.

July 5th.—Pain in region of sciatic nerve severe. One eighth of a grain of morphia injected under skin of hip, with relief.

28th.—*Three months since injury.* Patients sits up, and generally much improved.

Examination.—Seat of fracture on crest of ilium much more prominent than on the other side. This prominence apparently due to callus, since the spine of the ilium on the same side is flattened and driven back. By measurement from umbilicus to the malleoli, one inch of shortening of right leg. Perfect rotation of thigh and hip-joint, but foot a little inverted. Sore on sacrum entirely healed. She sits up and stands a little. Still suffering daily from pain in the peripheral branches of the sciatic nerve. Treated by subcutaneous injections of morphia. From this time to Aug. 28th, much the same symptoms, although the hip and leg improved.

Sept. 28th.—*Five months since injury.* Walks passably with crutch. Pain has been gradually disappearing. Occasional twinges in the terminal branches of the musculo-cutaneous nerve, on outer side of foot, and occasional injections of morphia.

Discharged, nearly well.

Several months later she was seen by the House-Surgeon, walking in the street, quite well.

It is probably unusual for so severe an injury to the pelvis to have happened without fatal consequences from injury of the pelvic organs. Fractures of the crest of the ilium alone are spoken of by Hamilton as the most common and the least serious of pelvic fractures. "The massive strength of the pelvic bones," says Mr. John Birkett, in Holmes's System of Surgery, "and the capability of

resisting violence enjoyed by the tissues which unite them together, combine to neutralize the effects of the application of ordinary force. The effect of a moderate degree of direct violence is to break off the more salient parts of the bones. The anterior superior spine of the ilium is not unfrequently separated in this manner. The greatest amount of injury is inflicted by heavy, crushing weights passing over the pelvis, *or by falls from great heights on very hard substances.*"

Had our patient fallen and alighted upon her feet, the ankles would have given way by the fracture of the fibula and perhaps tibia just above them; or the femur have been broken in its shaft or at the neck; but it is quite likely that the pelvis would have escaped, by receiving the force of the blow upon the natural arch, of which the sacrum is the key-stone. It might have been broken in this position, however, by the head of the femur being driven against the acetabulum. Such a case is related by Cooper; and in a preparation of such an injury in the Royal College of Surgeons, the lines of fracture diverging from the acetabulum have followed the track of union of the three separate pieces of which the foetal bone was composed. In our case the blow was received mainly over the hip, as evinced by the ecchymoses. The bladder was probably nearly empty, and thus escaped rupture by the shock of the fall. Nor did the fracture of the pubic arch implicate the urethra, as it would have been more likely to do in the male. No blood was ever found in the urine. There was only inability to micturate, and a mucous deposit, indicating a chronic irritation. The rectum, too, as well as the bladder, escaped injury, as neither the sacrum nor coccyx were broken. It is evident that the trunks of the obturator, great sciatic, and perhaps gluteal nerves sustained severe shock, stretching and perhaps laceration, since, although there was no paralysis of motion, there was heightened sensation, as evinced by the persistent neuralgia, which followed the course of their peripheral filaments for months afterwards.

It is somewhat remarkable, too, that the liver, so prone to fracture from its weight and friable tissue, should have escaped in this instance.

The very satisfactory recovery of the patient leaves only to be considered some interesting points of diagnosis. And first, as to immediate diagnosis and treatment.

"In examining a patient with suspected fracture of the pelvis," says Erichsen, "care should be taken not to push the investigation too closely, lest injury be inflicted by movement of the fragments. In those cases, indeed, in which the fracture does not extend completely across the pelvis, or in which it is situated in the deeper parts of the ischium, an exact diagnosis may be impossible." In the case we have described, there was no marked deformity of the limbs or pelvis to point to the nature of the injury. We had, only, a very severe fall; a great bruising and extravasation around the hip and

sacrum; a swelling, masking more completely the deep parts; and, finally, inability to stand, and pain. It was more by *a priori* reasoning from the terrible violence of the accident than from any physical evidences, that I was induced to persist in a protracted examination under ether, which resulted in establishing a clear diagnosis, without which the woman might have been deemed a malingerer, after three and four months had passed without her leaving her bed.

As to immediate treatment, the authority last quoted says, that the principal sources of danger in fractured pelvis arise from injury to the bladder and urethra, with consequent extravasation of urine; from laceration of the rectum, or fracture of the acetabulum. And that as to treatment, the first thing to be done is to pass a catheter into the bladder; the next, to keep the parts perfectly quiet, so as to bring about union.

The difficulty as to differential diagnosis in this case seems to lie in determining whether there were one or two fractures. Whether the evident fractures of the crest of the ilium and of the arch of the pubes communicated with each other; and if so, where they met? Whether through the acetabulum, or elsewhere?

The direction of the lines of fracture, the extreme mobility of both ilium and pubes under firm pressure, and the long inability to stand, point to a complete fracture through the pelvis, beginning behind the anterior superior spine of the ilium, running down until lost beneath the soft parts, passing through the acetabulum to the ischio-pubic arch.

The total inability to sit up for *two months*, and the gradual shortening and slight inversion of the leg, noticed at the end of this period, would indicate, in the first place, complete fracture; in the second, a gradual change going on in the socket and head of the femur. The comparative youth of the patient, 22 years, would indicate a fracture following the lines of union of the centres of ossification, which meet in the acetabulum, as more probable than elsewhere.

Hamilton divides fractures of the acetabulum into, First, fractures of the base of the cavity, with or without displacement; Second, fractures of the rim, with or without displacement.

"In fractures of the base of the cavity not accompanied by displacement," says Hamilton, "nothing but crepitus can be present as a sign of the accident; and this will hardly be sufficient, in itself, to enable the surgeon to distinguish it from a fracture of the neck of the femur within the capsule, without displacement. It is probable, therefore, that its existence will only be determined by dissection."

"There seems, then, to be no certain rule in relation to the position of the limb, but it is found to take one position or the other, probably according to the direction of the force, or perhaps in obedience to circumstances not easily explained. The shortening may vary from half

an inch to two inches; the trochanter is usually driven inwards. Crepitus is more uniformly present than in fractures of the neck of the femur. If the accident has also been a severe one, as a fall from a great height upon the trochanter, and if there be, at the same time, fracture of other portions of the pelvis, we may reasonably conclude that the head of the femur has penetrated the acetabulum. Yet it must be confessed that no one of these symptoms is positively distinctive of this accident, and that they are seldom found sufficiently grouped to render the diagnosis certain."

"Injuries of this kind," writes Mr. Birkett, before quoted, "may be mistaken for dislocations of the head of the femur, or fracture of its neck. They are usually accompanied by deformity and pain. The sensation of crepitus, on moving the limb, seems to be diagnostic of the injury."

In the case we have been describing, there were neither, at first, marked shortening, displacement, nor crepitus on moving the thigh. The shortening and displacement of the foot inwards came on gradually after some time. While, therefore, the direction and mobility of the fractures, and the long confinement, point to a fracture extending through the acetabulum, the absence of other signs proves that if fracture existed there it was without any displacement, and that the subsequent lessening of the length of the limb and inversion were due to secondary changes in the socket and head of the femur. We are not alone in these suppositions.

In a paper read before the Medico-Chirurgical Society, in 1854, Mr. Benjamin Travers has given an account of two cases of injury of the pelvis, which he assumes to be illustrative of the fact of a fissure, or crack passing through the acetabulum, without displacement, or any primary sign of the nature of the injury which can be relied on. The very acute pain produced by pressure upon the projecting spine of the pubes, and the inability of the patient to stand, he considers diagnostic of the injury. The limb may be gently handled and rotated without producing much pain; and the patient is forced to keep the recumbent posture for many weeks. At first the limbs are of equal length; but when the patient recovers, the injured limb is found to be permanently shortened. Mr. Travers believes that certain changes occur secondarily in the head of the femur; that it alters in shape, that articular cartilage is absorbed, and eburnation ensues.

It is possible, in our patient, that the fracture which began at the crest of the ilium extended down through the greater sciatic notch, and thus involved the sciatic nerve; but from the thickness of the bone above the notch this does not seem so probable as a fissure going through the acetabulum. Of course, it is not impossible that a fracture of the neck of the femur may have existed, besides the complete fracture of the os innominatum, and have been overlooked. If

so, it was certainly wanting in the ordinary signs of a femoral fracture. The severe pain felt on pressure around the groin and pubes corresponds to that described by Mr. Travers.

To aid in the differential diagnosis of fractures about the hip-joint, whether pelvic or femoral, Mr. Wood, of King's College Hospital, gives the following directions.*

"The surgeon must grasp the femur with one hand, and place the other firmly upon the anterior superior iliac spine and crest, or upon the pubes. Then, on moving the femur and abducting it freely, if a crepitus be detected, it will be felt *the most distinctly* by that hand which rests on, or grasps *the fractured bone*. The reason of this is apparent. The joint, with its cartilage, cuts off partially or entirely the vibrations of the crepitus from being communicated to the bone which is not fractured."

All authors agree that it is sometimes difficult to define and locate a fracture about the hip-joint, where the covering of the soft parts is thick, and swelling and effusion have taken place.

As to treatment for fracture of the pelvis, the broad bandage around the hips is the classical mode. The amount of good which it can do in holding together an entire fracture of the os innominatum must be very limited. In certain partial fractures of the crest of the ilium it may do positive harm by displacing the fragments inwards. Its greatest use is probably as a support by which the patient can be lifted and moved. If fracture of the acetabulum or neck of the femur be made out, the double inclined plane, with perhaps gentle extension by a weight, will accomplish all that can be done. The patient generally chooses his position on his back, and he should be allowed to retain it. The condition of the urinary organs, and any bruises, sloughs or bed-sores over the tuberosities or the sacrum, should be carefully watched.

As this has been a somewhat doubtful case of an infrequent injury, as to differential diagnosis, we have thought it the more important that it should be reported.

CASE II.—*Fracture of the Body of the Scapula.* (Under the care of Dr. HOMANS.)—Timothy C., aged 55, an Irish laborer, was brought to the City Hospital, August 21st, 1865. While at work in a stone-yard, a derrick fell, striking him on the shoulder, producing great ecchymosis. A displaced fracture of the middle of the clavicle was very evident. The swelling around the tumor was very great.

Three days after, when the tumor began to subside, a fracture of the body of the scapula could be plainly made out. It ran obliquely across the infra-spinous fossa, beginning at the axillary border of the bone, just below the glenoid cavity, and passing downwards and backwards to the posterior border, near the lower angle. The line of fracture was very evident; there were mobility and crepitus, but very little displacement. There was much inability to move the

* London Lancet, September 23d, 1865.

shoulder. He was treated by fixing the scapula with broad adhesive straps, and by being kept flat upon his back.

In about ten days a large effusion of callus could be felt over the seat of fracture, causing a prominent ridge across the infra-spinous fossa, as evident as the spine of the bone itself. To this, some displacement and tilting of the fragments probably contributed. At the end of three weeks he was allowed to walk about the ward, and the bones were united. At the end of six weeks he was discharged, well, save some stiffness of the shoulder-joint, which will yield to time and use.

This is a rare accident, unless the result of gun-shot wound; but the oblique or transverse fracture below the spine, like the above, is cited by Hamilton as the most common form of complete fracture of the body of the scapula. Hamilton has seen only two cases—one produced by a fall on the back, the other by a blow from a heavy weight. Ravaton, after a practice of fifty years, had never seen fracture of the scapula, unless produced by fire-arms. Among 2358 fractures in the Hôtel Dieu, only four examples of fracture of the scapula are recorded; and at the Middlesex Hospital, among 1901 fractures, only eight of the body of the scapula are mentioned.

"The infrequency of this fracture," says Hamilton, "is no doubt due, in a great measure, to the elasticity of the ribs, to the mobility of the scapula, and to the softness of the muscular cushion on which it reposes."

It is seldom broken except by great, direct violence. It may be so masked by swelling that other fractures around the shoulder-joint may be mistaken for it; or the fracture of the scapula itself may be overlooked. There is usually more or less displacement; and if the fracture is below the spine, the inferior fragment is displaced forwards by the *teres major*, and the superior backwards and upwards by the action of the *rhomboideus major*. In a few cases there is no displacement, though mobility and crepitus demonstrate a fracture. If there be displacement, it will be found very difficult to keep the fragments from tilting or over-riding. Nélaton and Malgaigne confess that they have never succeeded in keeping them perfectly in place. Very little serious inconvenience, however, results from this deformity; and position, and a sling and bandage, constitute the treatment on which most authorities are agreed.

DESTRUCTIVE MULE DISTEMPER.—A frightful mortality is reported among the mules on the various plantations bordering on the Mississippi. No less than two thousand in the vicinity of Vicksburg have died within a period of forty-eight hours. The disease is represented as having severe colicky symptoms, which speedily prove fatal. Precautionary measures are being taken by the planters to prevent its spread.—*Medical Record*.

CLINICAL REMARKS ON A CASE OF EXTRACTION OF CATARACT.

[Continued from page 257.]

JANUARY 5th, P.M.—There is but little to say with regard to the operation which has just been performed. The measurement of the cornea showing its diameter to be but small, the cataract knife had to be introduced close to the scleral edge. Under the circumstances it was only thus possible to form a cut of sufficient size; in cases, however, where the cornea is larger it is practicable to make both puncture and counter-puncture at the distance of a millimetre from the scleral edge. When the points of entrance and emergence are taken close to the scleral edge and the cut rounded off to correspond, we are apt, as in the present case, to get a small flap of conjunctiva, to the existence of which we are neither disposed to attribute unpleasant consequences nor attach a particularly favorable significance. Both views have, however, been held, the last, as is well known, having of late been strongly insisted on by an eminent practitioner, who regards the conjunctival flap as a strong safeguard against suppuration of the wound, and insists on its regular formation. When the conjunctiva is cut we do not regard it advisable to form a long and narrow flap, because that is apt to bleed and may prevent apposition of parts. It is better to turn the knife at a right angle to its previous position and cut directly out.

Just before completing the flap, the fixation forceps, the use of which in cases of flap-extraction may be conscientiously recommended, were laid aside, and the upper lid suffered to drop completely down. Manifest advantages attend the latter manœuvre, which is, of course, only practicable with the lower section. If the cut has approached within about 1" of its completion, its form is already a settled thing and no particular results would accrue from turning the knife more or less forwards. No further reason, therefore, exists for requiring as much of a palpebral aperture as is usually sought. The assistant should let go of the lid. The operator, who has laid down the fixation forceps and therefore has his other hand at his disposal, should use it for the purpose of gentle traction downwards on the cheek, in order to complete the cut while withdrawing the knife, without wounding the edge of the lid, and yet under the same circumstances as if both were closed. The palpebral pressure is thus, at this critical moment, reduced to a minimum, and protrusion of the iris, sudden loss of the aqueous humor, or even escape of the vitreous, are less liable to occur with unruly patients.

Collapse of the cornea, which the deep-set position of the eyes and the diameter of the cornea had led us to predict, took place after the first step (of the operation). It became strongly marked after the completion of the other three steps, concerning the execution of which I have nothing to add. The cornea finally nestled down in plaits, the edges of the wound, however, being in entirely good ap-

position, as was tested by restoring with the finger some degree of tension to the ball.

Immediately after the operation the *compressive bandage*, in common use at my infirmary, was applied. The orbital hollow is first evenly packed with charpie, which has been picked over and put together in the form of small tufts, the whole being secured by a single turn of a snug-fitting flannel bandage passing over one eye. This is held in place by another single turn around the forehead, the first half of which comes before, the other half after the turn passing over the eye. The middle portion of the bandage passing over the eye is knit of cotton and not of flannel. Special stress is to be laid on the proper management of this bandage* in cases of collapse of the cornea. Tolerably firm pressure must be made during the first few hours, and then gradually relaxed in order not to hinder the escape of liquid secretions.

January 6th, A.M.—Fifteen hours have passed since the operation without any complaint. Even the pain about the cut, which succeeds the operation, was totally absent. Is this to be construed as influencing for the better our unfavorable prognosis? Not in the least. In marasmic eyes we not infrequently meet with a similar amount of sluggishness, lasting twelve, sixteen or eighteen hours, and then yielding to symptoms of diffuse or circumscribed suppuration. In looking through my records for the after-history of extraction done on marasmic eyes, I find that where there is absolute insensibility the prognosis is less satisfactory than in cases where a few hours after the operation a certain amount of pain develops itself in the wound, accompanied by slight swelling of the lid, reaching its height in from four to six hours and then disappearing.†

6th, P.M.—The apprehensions expressed this morning have since unfortunately become realized. Shortly after the morning visit, about sixteen hours after the operation, the patient experienced a sensation in the eye, at first uncomfortable and then painful, and noticed an increased flow of tears. The bandage was removed eighteen hours after the operation. The nethermost layers of charpie were well soaked with a clear fluid. Since then both the swelling and the secretion have steadily increased. We now find, on opening the bandage, the lid already considerably tumefied, the folds broader, the deep hollow between the edge of the orbit and the bulb sensibly

* I am preparing for the Archive an article on the subject of this bandage. [This has already appeared. See Archiv für Ophthalmologie, bd. ix. abth. 2, s. 111.—*Translator.*] I would only here observe that to Sichel particularly, of modern ophthalmologists, is due the credit of the introduction into practice of the compressive bandage after extraction (since 1842, see Gaz. des Hopit., 1853, No. 54), and that I was incited by the personal solicitation of Sichel to devote time to the study of this important subject. A letter of mine on the subject of the compressive and constrictive bandages may be found in the "Manual of General Ophthalmology," by Seitz and Zehender, p. 425 et seq., Erlangen, 1861.

† This applies, of course, to marasmic eyes alone. In other cases, where the operation has gone off in the usual manner, an entire absence of subsequent pain from the very first is highly favorable; although it is an acknowledged fact that pain occurring within eight hours of the operation need cause much less anxiety and yields much more readily to treatment than when it comes on between twelve and thirty hours afterwards.

filled out in comparison with the other side, the whole superficies of the lid increased in volume. The furrow just above the internal palpebral ligament shows the characteristic swelling, oedematous and with a dash of redness. The flow of tears not only did not diminish during the morning, but has now become more and more mixed with a muco-purulent secretion. Although the bandage has been on only four hours, the whole lower layer of charpie is now soaked with pus. On removing the whole of the bandage several drops of a yellow secretion were observed to adhere to the edges of the lids. There is, to be sure, somewhat less pain, a circumstance which in no wise diminishes our apprehensions, inasmuch as an abatement of the pain is often noticed as the suppuration becomes developed.

To what shall we *attribute the symptoms*? Without doubt to a suppurative process of the cornea. Whether diffuse or circumscribed cannot be decided till the lids are opened. A simple prolapse of the iris is out of the question. It might, to be sure, cause a moderate swelling of the lid and an increased flow of tears; the proof of its existence would be, however, the fact that the tears remained clear, and, even when persistent, were very seldom mixed with masses of mucus; the occurrence, too, of a prolapse of the iris after an iridectomy and a properly practiced incision, is very rare. It consists, too, in the outset, of a slight involvement of the iris, which, in the course of time, gradually becomes more prominent and gives rise to symptoms. Still less can the present case be one of genuine iritis. Leaving out of sight the fact that this need hardly be apprehended in a case where the cataract was easily and entirely removed and iridectomy had been done, its existence would be indicated by neither the period, the symptoms, or especially the abundant secretion.

Can there, under existing circumstances, be any harm in *opening the lids*? Although strongly disposed to postpone opening the lids till the fourth or fifth day in a case where all has gone along quietly, because a different course would be certainly unnecessary and possibly prejudicial, I see no objection, where things are going wrong, to gain a knowledge of the facts by a careful examination of the eye. Granting that we have here a case of general suppuration, we should then relinquish all hope and adapt our treatment to the general condition of the patient, studying her comfort the while. If, on the contrary, the case be one of circumscribed suppuration of the wound, preventing its closing, some hope would still remain, and we should have to be guided by a careful study of the healing tendencies.

On proceeding, therefore, to open the eyes, several drops of a fluid composed of tears mixed with pus escaped from the conjunctival sac. The conjunctiva bulbi is tolerably reddened and pretty strongly chemotic. The entire corneal wound has become infiltrated with opaque, yellow matter to the extent of nearly 1''' and evidently throughout its entire thickness. The whole corneal flap moreover has a yellowish, sodden

appearance. Through its upper third alone is the iris visible and the reëstablishment of the anterior chamber evident. The corneal wound does not actually gape; a study, however, of this stage in similar cases leads us to infer that the cut edges are not in contact throughout their entire thickness. The patient has satisfactory quantitative perception of light.

How are we to regard this process? From which *tissue* does the suppuration proceed? There may those be still found who regard the iris as the source of the affection. But my anatomical and clinical studies have brought me to an opposite conclusion. When more extensive and spontaneous purulent infiltrations of the cornea show a tendency to extend to the epithelial layer of the membrane of Descemet and thence to the iris, much more would this tendency to diffusion be present in the case of a penetrating wound and violent suppuration. There is nothing surprising, then, in the suppuration of the wound being closely followed by turbidity of the aqueous and secondary iritis, the latter of which more readily attracts attention than the original affection, where cicatrization has already commenced. Nor has the supposition that the visible symptoms proceed from a suppurative cyclitis or choroiditis, any clinical foundation. It is true that such results may follow extraction in rare and exceptional cases. Loss of vitreous, for example, may be immediately succeeded by a purulent infiltration of the deeper structures; in an ordinary case of suppuration, however, like the present, the deeper membranes become involved either by an extension of the suppurative affection of the cornea in the shape of a diffused purulent choroiditis or panophthalmitis, or else the results of the secondary iritis develop themselves insidiously, the products of inflammation on the posterior face of the iris attaining a complete union with the capsular cavity, and the whole resulting in a chronic cyclitis and a consequent atrophy of the bulb. A trial of the amount of perception of light enables us in each case to form an opinion. Even in cases of diffuse suppuration of the cornea we find, during the stage of the so-called periphereic abscess, both perception of light and field of vision normal, so long as no signs of deep-seated suppuration, such as rigidity and protrusion of the bulb, are present. This could not possibly be so, were the purulent affection of the cornea but an evidence of suppurative choroiditis. An anatomical investigation proves decisive, and this we once had an opportunity of making in an entirely typical case of suppuration of the cornea (periphereic abscess, coming on thirty-six hours after extraction, and described at length by Dr. Schweigger). The deeper structures were here found entirely normal.

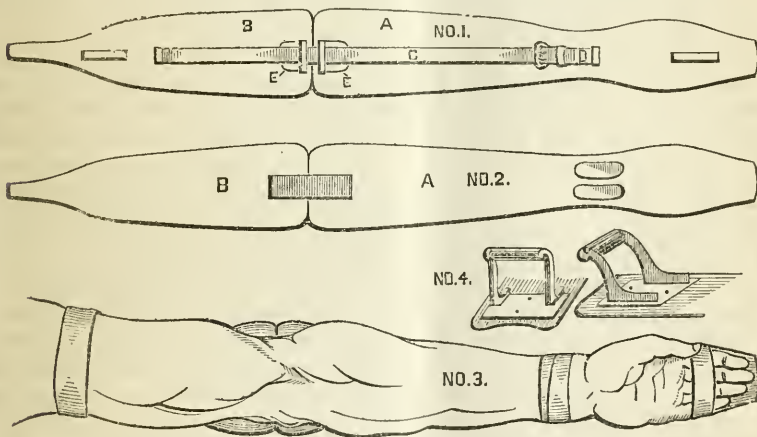
[To be concluded.]

SPLINT TO PREVENT CONTRACTION AFTER BURNS.

To the Editors of the Boston Medical and Surgical Journal.

MESSRS. EDITORS,—In a recent lecture upon the treatment of burns and scalds, delivered by Prof. R. M. Hodges before the students of the Harvard Medical School, the want was expressed of a splint which would prevent the contraction and stiffening of a limb from the cicatrization of a burn or scald received upon the interior of a joint.

Acting upon that suggestion, I have invented a splint which I trust will meet the want. If you refer to the accompanying cut, you will see that Fig. 1 represents an external view of the splint, A being that part which is applied to the fore, and B that to the upper arm. C is an *elastic cloth belt* which, passing over the double rollers, E E (also shown in Fig. 4), is attached to a buckle fastened near the wrist; thus forming an *elastic purchase*, which can be loosened or



tightened at the option of the physician, and which will allow the patient to bend the limb in a limited manner, though possessing tension enough to keep it extended when the muscles are relaxed. Upon the interior of the splint is a rubber hinge (see Fig. 2), or, what is better still, two hinges, placed far enough apart to permit the *olecranon* to rest between them, which, being elastic, allows the limb to move without drawing upon or displacing the bandages. As the bandage must necessarily be light, and loose over the injured surface, the splint will slip from side to side if care is not taken to bind as wide or double bandage tightly over one extremity of it, as over the hand and wrist in Fig. 3.

In the accompanying cut I have given but one form of the splint, that which would be applied in case of a burn or scald upon the interior of the elbow. Various modifications of it can be applied to nearly every joint in the body.

Hoping that the above will meet with a favorable criticism from yourselves and the rest of the profession,

I remain your ob't serv't, ALEXANDER J. STONE.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 3, 1866.

AMERICAN MEDICAL ASSOCIATION—MEETING FOR THE PRESENT YEAR.

THE American Medical Association commenced its annual session on Tuesday, the 1st inst., at Baltimore. Many considerations influenced the Association at its last meeting to select that city for the purpose instead of Cincinnati as at first proposed, not the least influential of which was its more central situation, making it more easy of access to delegates from the Southern States, who it was hoped would by their presence this year do much towards re-uniting the Association into a truly national body. We have before expressed ourselves pretty freely in relation to the shortcomings of the Association, and what we regard as medical defects in its organization, which must always prevent its having a very direct and powerful influence in settling the most important questions of medical education, medical ethics, &c., which it properly belongs to such an association to consider. Nothing has been done as yet to remove these defects; in fact nothing short of a complete remodelling can do it. The record of last year's proceedings, as published in the bulky volume of Transactions on the table before us, only strengthens our convictions of the correctness of our views, and the generally expressed opinion of our brethren, so far as we are familiar with it, takes the same direction. It is plainly impossible for a body made up of such heterogeneous materials to take in hand and do justice to many of the topics which demand consideration. It is no secret that the office of delegate fairly goes a-begging in some of our largest communities, until it has come to be a question of who *can* go as a representative to the Convention, rather than who *ought* to go. When the qualifications of a delegate have come to be measured by his ability to attend the meeting, we cannot hope much from the fruits of its (so-called) deliberations.

As a re-union of members of the profession for friendly intercourse and communion, however, these annual meetings have a value which cannot be overestimated. The present, in particular, is one in which this element is of incalculable importance. It will do the delegates from both North and South great good to cross hands once more in cordial friendship and good will, after the contest which has divided us for the past four years. It is a great satisfaction to think that so many of our brethren within the line of the Confederate States have done so much, as opportunity offered, to show that their hearts were better than their politics, and have endeavored, so far as the means at their command would allow, to mitigate the sufferings of those whom the fortunes of war had thrown upon their professional charge. We fervently hope that the South will be well represented at Baltimore, and

that the delegates will return to their homes strengthened in heart to employ all their personal influence to aid in recementing into an indestructible union the States which the tremendous shock of war has failed to permanently separate.

At the present meeting the following amendments to the Constitution and By-laws will be acted upon. "To amend the article concerning the assessment of members, by striking out from the first line the word '*three*,' and from the second and third lines the words '*as well as*,' and inserting the word '*five*' and the words '*and three dollars*' in the stead thereof respectively." This fixes the assessment of delegates at five dollars, and that of permanent members at three dollars. "Add to paragraph 14 of Art. II. of the Constitution (end of 15th line, page 341 of *Transactions* of 1864), after 'unanimous vote,' the following:—'and shall continue such so long as they remain in good standing in the body from which they were sent as delegates.' Strike out the word '*ten*' and insert the word '*twenty*' in the *third* paragraph of the second section of the Constitution, and also add at the close of the said paragraph the following:—'*Provided*, each local society, now entitled to representation in the Association, shall have the privilege of sending one delegate, although composed of a less number of resident members than above named.'" This helps to cut down the number of representatives from local societies one half. "Amend the 12th paragraph of the second section so that it shall read, '*The members by invitation* shall consist of practitioners of medicine of reputable standing;' 'they shall receive their appointment by invitation of the meeting after an introduction from, and being vouched for by, any of the members present, or any of the absent permanent members. They shall hold their connection with the Association until the close of the annual session at which they are received, and shall be entitled to participate in all the offices of the Association, but shall not have the right of voting.' Amend the 16th paragraph of the second section so that it shall read, '*The permanent members* shall at all times be entitled to attend the meetings and participate in the offices of the Association so long as they shall continue to conform to its regulations, but without the right of voting,' and repeal the remaining part of the paragraph. Add an additional paragraph as follows:—'*All Ex-Presidents and Ex-Vice Presidents*, and all permanent members of the Association, who have attended, as delegates, four annual meetings of the Association, shall possess all the powers and enjoy all the rights of elected delegates.'"

In conclusion, we can only express the hope that the meeting of the Association during the present year may be characterized by as much good feeling and social enjoyment as that of the last; and that its vitality may thus be renewed from season to season, keeping the heart warm and the blood in vigorous circulation, confident that the time is not far distant when the cerebral forces must gain a more complete ascendancy over its whole organization, giving it a wiser direction and a more abiding power.

BOSTON CITY HOSPITAL—OPENING OF A NEW PAVILION FOR CONTAGIOUS DISEASES.

In response to an invitation from the Medical Staff of the City Hospital, about one hundred members of the Suffolk District Medical

Society met at the Hospital, on Thursday the 19th ult., to inspect the new pavilion for contagious diseases, just completed.

This building is located near the south-east corner of the Hospital grounds, on the corner of Springfield and Albany Streets, but set back from the street. It stands at right angles to the engine-house and laundry, and was so located to economize the ground and leave room for the erection, at any future time, of another large pavilion for general purposes, between this and the old medical pavilion. Its architecture differs somewhat from the other wings. The dimensions of this pavilion are as follows :—101 feet 5 inches in length, and 46 feet 5 inches in width ; two stories in height, with a basement to be used for storage, and a ventilating chamber, or attic, 10 feet wide, extending the whole length of the building.

The first story is divided into twelve rooms, six on each side, 14 by 15 feet in size, and 14 feet high. Ten of these rooms are designed to accommodate two patients each ; one, for the nurse, and one for a kitchen.

The second story is divided into twelve rooms, 14 by 15 feet in size, and 18 feet high, with arched ceilings ; ten of these rooms are for patients, one for the nurse, and one for a bathing-room. A hall, or passage-way, 10 feet wide, in each story, extending the whole length, with a staircase at each end ; water-closets in each story. The building is so arranged that each room is surrounded by brick walls, directly upon which is a coating of hard-finished plaster, which can be washed. There are no projecting mouldings of wood-work at the doors and windows, and therefore no ledges where dust can collect. The floors are of matched, narrow spruce, oiled and waxed. Each room has a large window, with outside blinds, sliding up and down, in three pieces.

The pavilion is heated by steam from the boilers connected with the main Hospital, and the pipes are so arranged that each room can be heated and ventilated by itself, forming, as it were, a separate house. This will aid much in economy, and in preventing contagion. The ventilation is original in its arrangement. The middle walls are made up of flues, twelve inches square, three to each room, with two opening near the ceiling and one near the floor. These are air, or ventilating flues, wholly ; and it is thought that their position in the centre of the building will ensure a more reliable and constant current than if they were exposed to cold temperatures in the outer walls. Another flue serves to convey fresh air direct from the fan, and is regulated by a valve. The ventilating flues empty into the ventilating chamber, in the roof. This chamber, which is 100 feet long, 10 wide, and about 10 high, communicates with the outer air by a series of swinging windows, all round it, and near the eaves. These windows are controlled by cords in the corridors below. It is designed to open those on the lee side only, according to the direction of the wind. In this chamber are to be coils of steam-pipe, to heat it and aid the ventilation, if necessary. The rooms in the second story have also a fourth opening, governed by a swinging valve, leading into the ventilating chamber, near the summit of the arch of the ceiling. These rooms are intended for the worst cases. The water-closets have ventilating flues starting beneath each seat, and emptying above.

There are dumb-waiters from the kitchen, and a lift to carry up patients. Each room has a set wash-basin and cold water. The bedsteads are of iron, and the furniture is of oak. There are two mattresses, hair and husk, to each bed. A table, two chairs, a night-chair and a commode. Each room has a single gas-bracket.

The corridors are ventilated by separate flues. A dry, well-lighted, ventilated and cemented cellar runs beneath the whole building. In it is a brick tank to wash beds, and a drying chamber to steam and dry them without picking them over. The building is to be known as "Pavilion No. 3," and is connected with the main Hospital by a covered corridor, which opens into the central passage-way near the engine-house. Beneath this corridor is a long, cool cellar, for storing vegetables.

The capacity of the new pavilion is forty beds. Of course, its merits are to be tested by experience. It has at command three modes of ventilation. First, the natural ventilation by windows and air-flues; second, forced ventilation by the fan; third, ventilation by a steam-heated ventilating chamber in the roof, when the fan is not running.

This pavilion is designed for the reception of any form of disease reputed contagious, except smallpox. For that there is a separate building in the rear. It is intended to receive, first, from *the wards of the main Hospital*, typhus, erysipelas, gangrene, and any cases which are very offensive or noisy; second, from *the city at large*, typhus, the exanthemata, erysipelas, gangrene, &c. &c.

It is hoped that the often-expressed public want of a ward for contagious diseases arising either among the servants of private houses, in lodging houses, or in hotels, will now be fully met. The City Hospital can now admit *every form* of disease, medical or surgical, which is *not incurable*, except *obstetric* cases. And it is perhaps not improper to express the hope that a lying-in department may in time be added, to supply a want which exists unprovided for in no other city of the size and position of Boston. The general arrangement of this new pavilion would seem also very well adapted, with slight modifications, for an obstetric ward.

This building is constructed of brick and stone, in the most thorough manner, and cost, all furnished, a little short of forty thousand dollars. For, perhaps, the first time in the history of public enterprises, it was built two thousand dollars *inside* of the appropriation. For this, and for its general architectural excellence, the public are indebted to Mr. Cutler, the Superintendent of the Hospital, who supervised its construction. The original plan of the pavilion was drawn up by Mr. Cutler, aided by a committee from the medical staff, consisting of Drs. Buckingham, Borland and Cheever.

During the past season there have also been built a substantial stable, autopsy-room and coal-shed.

The new pavilion is to be opened at once, and certain changes in the surgical pavilion will follow the increased accommodation afforded. The children will be removed from the basement to the attic ward, where there is abundance of light, sun and air. The entire basements will be devoted to the medical, surgical and ophthalmic out-patient departments, and to the reception of accidents, night cases, a few lighter cases of fracture, and convalescents.

After inspecting the new pavilion, the invited guests went over the main Hospital, which they found full, and in good condition; and at five o'clock separated, after an hour pleasantly passed.

Comparative Expense of the Massachusetts General Hospital and the City Hospital—Correction.—A friend has pointed out an error in our comparison of the average weekly expense of each patient in these institutions during the past year, as stated in our editorial a short time since. We there said that we found the average to be a fraction of a dollar less per week for each patient in the latter than in the former. We should have stated that the average expense for each patient was \$2.57 more per week in the City Hospital, as might naturally be expected in a new institution. Our error arose from basing our calculation on the *net* expenses for the year, after making certain deductions which we now find were not made by the Superintendent of the Massachusetts General Hospital in his estimate.

The Annual Report of the Inspectors of the Massachusetts State Prison gives us some interesting statistics. From it we learn that the mortality "in the Eastern Penitentiary of Pennsylvania" (a prison managed on the separate system), "is five and a half; in the Massachusetts State Prison" (congregate system), "it is three and two-fifths per cent.;" and taking into account the time served, the percentage in the latter is really less than one half of that in the former. From the interesting report of the physician, Dr. A. B. Bancroft, we learn that "although typhoid fever has prevailed in Charlestown and vicinity the past more than any previous year, and has been in some families quite fatal, yet during the last year, as well as the previous eleven years, no case of the disease has occurred in the prison." Certainly a very remarkable fact, and speaking well for the hygienic management of the institution.

Revived Medical Periodicals.—We have before us the circulars of two revived medical periodicals, the *Southern Medical and Surgical Journal*, and the *Nashville Journal of Medicine and Surgery*. The former is to be printed and published at Augusta, Georgia, third series, edited by Joseph Jones, M.D., Professor of Medical Chemistry in the Medical College of Georgia, at Augusta; and formerly Surgeon in the provisional army of the Confederate States. It is intended to be a medium for the publication of the valuable experience of the medical officers of the late Confederate Army, as well as for the communication of the discoveries and advancing doctrines of science and of all the departments of medicine, and of the facts and discoveries tending to develop the material prosperity of the South. It will be issued every two months, commencing 1st of July, 1866, and each number will contain one hundred and seventy-six pages of printed matter (octavo). Terms, \$5 per annum, in advance.—The second will be edited by Dr. W. K. Bowling, and will be published monthly in numbers of eighty pages each; subscription price for one year (two volumes), \$5.

Sanitary Inspection of Boston.—A searching inspection of the city began on the 1st inst. under the direction of the City Physician. The city has been divided into nine districts and the following appointments of physicians and inspectors have been made:—

Dist. 1. Dr. A. B. Hall, Physician; W. B. Howard, S. W. Wheeler and S. J. Simmons, Inspectors.

Dist. 2. Dr. George Derby, Physician; F. O. Ropes, O. F. Wadsworth, W. C. Crane and J. A. Lamson, Inspectors.

Dist. 3. Dr. H. L. Shaw, Physician; C. K. Wheeler, W. A. Porter and C. E. Leighton, Inspectors.

Dist. 4. Dr. S. A. Green, Physician; H. Cudworth and W. C. Wood, Inspectors.

Dist. 5. Dr. H. F. Damon, Physician; D. Youngman and E. W. Aiken, Inspectors.

Dist. 6. Dr. A. D. Sinclair, Physician; D. Chamberlain and J. B. Treadwell, Inspectors.

Dist. 7. Dr. T. W. Haskins, Physician; C. W. Swan and F. H. Brown, Inspectors.

Dist. 8, South Boston. Dr. P. P. Ingalls, Physician; R. M. Ingalls, S. H. Carney and R. Y. Jenkins, Inspectors.

Dist. 9, East Boston. Dr. P. M. Crane, Physician; H. C. Pinkham, J. H. Dalton and Phineas French, Inspectors.

The Cholera at New York.—Dr. Swinburne, health officer at New York, made the following report on Saturday:—"Yesterday afternoon I visited the hospital ship and found the patients doing well. There were thirteen admissions. Those among the adults are very mild cases, merely choleraic diarrhœa. The cases of the children are very severe; a majority of them will probably die. The severity of the disease is evidently lessening. Dr. Bissell, I am happy to state, has entirely recovered. The sick are abundantly supplied with proper nourishment, medical assistance, nurses and spiritual advice, and of the whole number (96) now in hospital, there are but four whose recovery is doubtful. There has been no cholera on the England or Virginia since last report."—A despatch from Halifax states that the passengers of the England who were left are now well, and that no deaths occurred last week.—A despatch from New York on Saturday evening says that thirteen cases of cholera and five deaths had occurred since the last report by Dr. Bissell.

Another Death from Chloroform.—A few days since another victim to this murderous anæsthetic died in a dentist's chair in the City of Philadelphia. An inquest was held upon the body, from the report of which, as we find it in the newspapers, we make the following extract:

"The evidence at the inquest was short, and unusually to the point. It was as follows:

"Mrs. Siemmers sworn.—I live at 1142 South Eighth street; I have known Mrs. Lyster several years; she called at my house requesting me to accompany her to Mr. Slack's, the dentist; she requested me because her sister was very nervous; this was a week ago; she asked Dr. Slack to give her chloroform; he said that he didn't use chloro-

form, and recommended nitrous oxide gas; she said that she had taken chloroform before, and preferred it to anything else; an appointment was made for Monday at 2 o'clock. Witness accompanied Mrs. Lyster according to appointment; the doctor fitted the forceps to her teeth; Mrs. Lyster was extremely nervous; he put a cork between her teeth; he said that this was necessary; he then placed a cloth over her nostrils and dropped chloroform upon it; in a minute or two she turned deathly white and said she was very sick; she didn't speak afterwards, but went into convulsions and died soon; Mrs. Slack came in, and we all rubbed her and tried to restore her, but it was of no use.

Dr. Wm. W. Slack, sworn.—Testified that Mrs. Lyster called upon him a week ago to have some teeth extracted; she seemed exceedingly nervous and apprehensive of pain; she asked how pain could be avoided; witness suggested that she should take nitrous oxide; she said that she had taken chloroform before, and preferred that; an appointment was made accordingly, though witness refused to administer more than enough to paralyze the nerve—not to produce unconsciousness; this was after she had assured me that she had no affection of the heart, nor any complaint that could be prejudiced by its use; bought the chloroform on Saturday night; I gave to a little child on the same day a larger inhalation than that which Mrs. Lyster took.

Dr. Shapleigh testified that he had made a *post-mortem* upon the deceased. Every internal organ was perfectly healthy. There was congestion of the lungs and bronchial tubes. This may or may not have been the result of chloroform.—This closed the testimony. The verdict was a simple one—that Mrs. Lyster died from the effects of chloroform, administered as an anæsthetic by Dr. Slack, in very moderate quantity; that the deceased requested its application to allay the pain consequent upon the extraction of her teeth.

Middlesex North District Medical Society.—At the regular annual meeting of this society held at Lowell, April 25th, 1866, the following officers were elected for the ensuing year:—*President*, Jonathan Brown, of Tewksbury; *Vice President*, Jere P. Jewett, of Lowell; *Secretary*, Jas. G. Bradt, of Lowell; *Treasurer*, N. B. Edwards, of No. Chelmsford; *Librarian*, Joel Spalding, of Lowell; *Commissioner of Trials*, John O. Green, of Lowell; *Standing Committee*, D. P. Gage, C. G. A. Eayers, W. Burnham; *Counsellors*, C. A. Savory, Joel Spalding, J. C. Bartlett, Austin Marsh, Walter Burnham; *Censors*, J. C. Bartlett, C. A. Savory, N. B. Edwards, L. Howard, J. P. Jewett; *Delegates to Convention at Baltimore*, J. O. Green, W. Burnham, G. F. Shattuck, J. H. Gilman, C. G. A. Eayers, Geo. E. Pinkham, W. Bass.

The New York Society for the Relief of Widows and Orphans of Medical Men, according to the annual statement of 1865, has 109 members. Its invested funds now amount to \$56,500. Income during the year, \$10,013.37. Disbursements to annuitants, \$1125.—*Medical Record*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 28th, 1861.

DEATHS.

	Males.	Females.	Total
Deaths during the week	40	30	70
Ave. mortality of corresponding weeks for ten years, 1850—1860	41.2	39.5	80.7
Average corrected to increased population	00	00	87.88
Death of persons above 90	-	0	0

JOURNALS RECEIVED.—*American Journal of the Medical Sciences* for April.—*The Medical Record*, No. 4.—*Medical Reporter*, Nos. 3 and 4.—*Medical and Surgical Reporter*, Nos. 14—17.—*New York Medical Journal* for April.—*Richmond Medical Journal* for April.—*Atlanta Medical Journal* for April.—*New York Lancet*, No. 6.—*L'Union Médicale*, Nos. 33—44.—*Gazette Médicale*, Vol. i., No. 9.—*Canada Medical Journal*, Vol. ii., No. 10.—*Chicago Medical Journal* for April.—*Cincinnati Journal of Medicine* for April.—*Cincinnati Lancet and Observer* for April.—*United States Medical and Surgical Journal*, Chicago, Vol. i., No. 3

MARRIED.—At Cambridge, 23d ult., Dr. C. E. Vaughan to Miss E. F. Wells, both of C.

DEATHS IN BOSTON for the week ending Saturday noon, April 28th, 70. Males, 40—Females, 30. Accident, 4—*inflammation of the bladder*, 1—*inflammation of the bowels*, 1—*inflammation of the brain*, 1—*brouchitis*, 6—*cancer*, 1—*consumption*, 16—*convulsions*, 3—*croup*, 2—*cyano-sis*, 1—*dropsy*, 2—*dysentery*, 1—*typhoid fever*, 3—*gangrene*, 1—*gastritis*, 1—*malformation of the heart*, 1—*hemorrhage*, 1—*infantile disease*, 1—*laryngitis*, 1—*disease of the liver*, 1—*congestion of the lungs*, 1—*inflammation of the lungs*, 5—*marasmus*, 3—*cerebro-spinal meningitis*, 1—*old age*, 1—*paralysis*, 1—*peritonitis*, 1—*premature birth*, 1—*rheumatism*, 1—*teething*, 1—*tumor*, 1—*unknown*, 5.

Under 5 years of age, 25—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 13—above 60 years, 9. Born in the United States, 51—Ireland, 15—other places, 4.

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No. 15.

PUTRESCENT SORE THROAT.

[Read before the Boston Society for Medical Improvement, March 26th, 1865, by B. E. CORTING, M.D., of
Roxbury, Associate Member.]

IN the account of the last illness of Washington we read that, after repeated venesections, blisters, calomel, tartar emetic, &c. &c., "he prayed his physicians to take no more trouble about him, but to let him go off quietly." The eminent and venerated defender of the medical attendants in this case remarks:—"Sixty years have passed since his decease, and the disease [acute laryngitis] is understood now much more perfectly than it was in 1799. To what result have we arrived? Has any treatment proved to be more successful than that adopted in his case?" Then, after commenting on the agents employed one by one, adducing arguments for their use, and adding his own great weight of authority "that it is in such circumstances that the *anceps remedium* is justifiable," our venerated friend asks—"what would medical critics, what would posterity have said, if this good doctor, when such a patient was in his hands, in imminent danger from an affection which was manifestly due to an inflammation, had folded his arms, and said—there is no possibility of giving relief; but you may let him inhale the vapor from some herb tea?" Now, as he had previously stated that "this disease, so suddenly destructive to life, is among the most simple in its nature," and compared it to inflamed fingers, "become red, swollen, indurated in all their soft parts, and painful, to such a degree as to make motion in them very difficult and at length impossible," it may be answered (without impugning in the least the reputation of the medical attendants, "who we" too "think did as well at least as any of their critics would have done" had they practised at that time) that, seeing that such harsh, "doubtful" agents, if not positively therapeutic, must be exceedingly damaging, and that similar inflammations, if external or within reach, would now be treated with moist sedative applications, we of the present day with other experience may admit that, in such and cognate cases, an application in the form of the vapor of some herb tea may at least be harmless, and, if it does not actually re-

lieve, as it probably may, will not in any event compel the dying sufferer in his aggravated distress to beg to be allowed to "go off quietly."

We have been led into these remarks by reflecting on some cases of sore throat which have been recently under our care—two of which were of that formidable and imminently threatening character which seems to put at defiance all the resources of art.*

These two cases were in young adults, from 20 to 25 years old, and were very similar in their character, progress and termination. After a day or two of bearable soreness of the fauces, attended with a mild hoarse cough, an overwhelming sensation of sickness and debility followed, accompanied by imperfect rigor and general tremulousness. The patients, unable to sit up, betook themselves to bed. The soreness, stiffness, puffy swelling of the throat rapidly increased. Dusky patches appeared in different parts of the throat, and the whole fauces, tongue and palate were coated with a dirty whitish covering. In twenty-four hours more the voice was completely lost, the patients not being able to articulate even in a whisper. Breathing became painful and difficult, so much so as to suggest the advisability of tracheotomy. The coating of the parts early becoming putrescent, the breath was at times intolerably offensive, and filled the room with its odor. Swallowing was now almost impossible. Excoriations occurred on the lips and face, apparently from the secretions of the mouth and nose. Petechial spots appeared on various parts of the body. The constitutional symptoms were severe and threatening. On the third day of the full deposit, the coating began to separate in fragments, and soon came off in quantity—a somewhat coherent incrustation, not a membrane, and not altogether without intermingled blood—expelled at times by great and almost uncontrollable efforts; leaving the parts, as far as could be seen (for exploration was not easy), of a dusky-red, unevenly seared and deadened hue. A few days later, some equivocal indications of recent ulcerations were noticeable.

The voice gradually returned; and at the end of ten days convalescence was completely established.

Surely such cases, if any, appear from the first to require active interference; and these seemed to demand it. Yet, believing that the disease could not be shortened or changed in character, but might be greatly aggravated, by harsh measures, emetics, drastics, blisters, and the like, the swabbing with nitrate of silver, &c., or the attempt to detach the coating of the fauces by spatulæ or other instruments (to say nothing of the difficulties attending these procedures), and, further, believing such management unphilosophical, not in accordance with Nature's indications, and contrary to the principles on which an accessible external inflammation or its effects would be

* Cases which are sometimes called *diphtheria*—inappropriately, as it seems to the writer, if the true meaning of the word is to be considered of any account.

treated—we took, as in other previous instances, a very different course.

The patients were put in the most comfortable positions in bed; much of the time semi-recumbent. An acceptable warmth was constantly maintained. Liquid nourishment, broth or milk, was directed, though very little of either was taken, from difficulty in swallowing. The bowels were kept open by enemata; and beef-tea was administered in this way, in the severest part of the sickness. Externally the throat was entirely covered up to the ears with light, evenly adjusted cotton batting, dry; and, from an extemporized apparatus (a tea-pot and a paper tube) a continuous current of vapor of herb-tea was made to pass constantly over the affected parts, by inhaling through the mouth and expiring by the nares. The herbs used were sumac-berries and sage; and they were renewed every thirty or forty minutes for more than three days. There was no difficulty in keeping up the process, as the patients clung to it as their chief source of comfort, demanding it whenever omitted for any considerable time. It should be mentioned, also, that an anodyne for the night (a fluid drachm of the officinal solution of morphia) was suggested, but taken only twice or three times, and then only imperfectly from inability to swallow it; and, also, that on the separation and expulsion of the coating (in one case, entirely accomplished in a night-time), pleasant gargles, or washes rather, of very weak sumac-berry tea were occasionally resorted to. Through all the sickness the patients were most minutely watched and thoroughly nursed, by intelligent and anxious friends, who understood the rationale of the treatment as well as the impending dangers.

This was all the treatment. In the first place it did no harm; in the second place, it did not add in the least to the distress of the patients; in the third place, it gave positive comfort, and rendered the sickness more tolerable; in the fourth place, it did not in any way weaken or prostrate the patient, or contribute to that utter debility in convalescence which sometimes in the extremities seems almost to amount to paralysis, but actually aided in sustaining all the powers of endurance: lastly, when fatal results ensue, as they must sometimes under every kind of treatment, even the best, this method will add no pang to the dying struggle, and will leave no doubt to disturb the subsequent reflections of the conscientious medical attendant.*

THE New Orleans School of Medicine held its commencement on March 16, on which occasion twenty-nine graduates received the degree of M.D. The address to the graduates was delivered by Dr. Fenner, Dean of the Faculty.

* On reading this paper, the writer was gratified to receive emphatic support from the Society, and to hear from more than one member that no rational physician would now think of treating such cases in a manner different from that which he adopted. *Nos mutamur.*

SUGGESTIONS AS TO A POSSIBLE APPLICATION OF LOCAL ANÆSTHESIA.

By WILLIAM OTIS JOHNSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

RICHARDSON'S method was no sooner announced than experiments were commenced, having in view, first, a more available fluid; second, a cheaper and better mechanism; third, the universal application of its therapeutic principle. In this city alone the matter has been carried on with an ingenuity and an alacrity which indicate that in the first two points all but perfection is already attained; so that the general practitioner, to whom the constant and frivolous demands for etherization are so often, to say the least, inconvenient, will have reason to be thankful for the "atomizer," or whatever the instrument of the future is to be called.

Neuralgia would obviously be one of the first diseases for its medical application, and in nearly all its phases—the good effects of vaporization of its seat are already established.

When the first statements reached this country, it occurred immediately to the writer, under circumstances not necessary to relate at present, that, both by analogy and upon sound theoretic considerations, the topical application of cold through the medium of an atomized fluid, in most of the affections generally included in the term "intestinal obstruction," would be likely to find a larger measure of success than any one of the expedients hitherto employed. No opportunity, however, up to the present time has presented itself for trial.

Galvanism, whether applied outside of the abdomen or to the mucous surface of the intestine, and dilatation, whether by water or air, when they successfully antagonize the agent of causation of whatever origin, as they sometimes do, act upon recognized principles. Without excluding from consideration any general remedial action of the anæsthetic immediately upon the part affected, and not assuming to limit its usefulness to definite ways, it may still be as well to confine our attention to a single point.

Foremost among the phenomena of what for our present purpose we may as well call "ileus," are twisting pain, and local tumor from which upon the whole the pain seems to radiate. In a large proportion of the more recent and accurate observations this tumor and its characteristics, as a point in diagnosis, are clearly established. Generally it is in one of the iliac fossæ—let us suppose it to be in the *right*, as it also generally is.

There is a large probability that any tumor fixed in this region, or, if movable, shifting about it, has one of several possible origins. It may be—

1. A comparatively recent fecal impaction.
2. A long-standing intestinal concretion.

3. A gall-stone or foreign body lodged outside the valve.
4. A phlegmon, formed or forming.
5. A plugged or an inflamed appendix.
6. The end of the ileum with the valve, cœcum and appendix going up through an inverted colon.
7. The end of the ileum, through, and commencing to be strangulated by, the valve.

8. Incipient strangulation by the appendix or by a local diverticulum, a cord, or membranous hernia.

It is submitted that while the blanching of the abdomen over this apparent seat of an affection, all but certain to terminate fatally if left to its course, would deaden the external and deeper-seated sensibility and be in this way alone a grateful relief, it may achieve a more precise and potential action.

In the first three suppositions which illustrate the occlusion of the calibre of the intestine, it is conceivable that the sudden constriction of the abdominal walls might cause them to act vicariously for the probably paralyzed intestinal walls, and by moulding and oblongating the fecal mass, displace it and restore peristalsis; or it may urge on the concretion to the sphincter; or excite the outside body through the valve, whence, of course, if it has already traversed the ileum, its way onward and out would be easy.

It might act as a powerful antiphlogistic and dispel an incipient phlegmon, which, apart from its idiopathic features, is always liable to produce positive obstruction by compression of the canal.

Invaginations are known to have been resolved through the natural elasticity of the intestine, without going on to either gangrene or to serous adhesion and elimination. One of the most favorable conditions to this restoration would be a temporary arrest of too violent peristalsis, and partial congelation would be a powerful means to this end.

With regard to the appendix, acting as it seems to *sua sponte*, and very erratically at that, while we know that it is fully capable of the most sudden and fatal mischief, it is equally clear that as under the strongest apparent provocation it is quite silent, so also it may take on an equally silent inflammation and gangrene, or shrivel to a cord, or disappear entirely, without lighting up a peritonitis, even in the immediate neighborhood; but the effect of anæsthesia here could be only antiphlogistic.

When the strangulations indicated have actually occurred, it is only barely possible that the external effects of the spray might act as an internal taxis, and replace or displace more favorably the inflated bowel.

It might suggest itself that opposite forces are required to meet the different emergencies indicated, but it must be borne in mind that while the trouble may arise from any one of these agents, it is not likely to proceed from any two of them primarily. And the same

force at different degrees or with distinct antagonism may deaden or dispel pain, or may constrict the external parietes, or may stimulate paralyzed intestinal muscular fibre, or moderate peristalsis, or arrest inflammation.

It is not intended here to anticipate the physiology of an experiment, but to state the ground for a reasonable expectation that a particular method of treatment, always at hand, easily applied, not known to be capable of detriment, certainly temporarily grateful, may claim still more as among its possibilities an element for permanent good in a most fatal class of affections, whose victims die often without any adequate pathological evidences of causation, even when the agent is most clearly recognized.

CLINICAL REMARKS ON A CASE OF EXTRACTION OF CATARACT.

[Concluded from page 250.]

Is the corneal suppuration to be regarded in the case of our patient as already *diffuse* (i. e., past aid) or *circumscribed*. Although the transparency of the greater part of the cornea has become impaired, yet it is only within the narrow streak following the edge of the wound that the infiltration has taken on the character of destructive suppuration. The remaining semi-transparent infiltration is at present to be considered as a swelling of the parenchyma, capable of retrogression. Moreover, a careful examination of the upper half of the cornea reveals the entire absence of that ominous circular infiltration of pus, which, when it entirely surrounds the cornea, is a certain presage of necrosis and slough, and the proper pathognomonic mark of diffuse corneal suppuration. If, however, the case at the present time be one of circumscribed suppuration, or suppuration of the wound, it is highly probable that it will take on the diffuse form. Hardly twenty-eight hours have elapsed since the operation, the symptoms have been continually on the increase, the morbid process has its seat in a part which was known in advance as offering a poor field for action and inclined to suppurative processes; every circumstance is therefore unfavorable. Should diffuse suppuration not occur, hopes may yet be entertained; the processes thus set up, however, go to endanger the ultimate result, although here the existence of the coloboma is much in our favor.

What can we do that will tend to limit the suppuration? Shall ice-cold applications be made? While they are of doubtful utility in a prophylactic point of view after an operation, they are to be decidedly condemned when suppuration has once commenced. This is eminently true of marasmic eyes. The application of cold does but accelerate the advance of the process most to be feared.

Nor can I, under existing circumstances, recommend the application of leeches in the vicinity of the eye. Just in proportion as

their use is beneficial in cases where the wound has healed, but where symptoms of irritation appear along its course or iritis comes on, so is their employment attended by danger during the early part of the healing process. Antiphlogistic treatment under such circumstances owes its continued employment to the erroneous idea that whatever happens after an operation depends necessarily on an undue amount of inflammation. When a marasmic patient has a wound that threatens to suppurate, no surgeon would think of applying leeches in its vicinity. And does not the same principle hold good of a part the already feeble nutrition of which has been impaired by an extensive incision? The afflux of blood, induced by the suction of the leeches, naturally causes a more abundant inundation of the infiltrated parts, and the affair terminates unfavorably before the occurrence of the period of remission, from which good might otherwise be derived. It was sad experience, however, and not the theoretical considerations which more tardily matured, that has led me to abstain from the application of leeches in the vicinity of the eye the first three days after an extraction.

Shall venesection be performed? I admit that this method is free from the disadvantages pertaining to leeches, that time is thus often gained when the symptoms are threatening, and the affection thus carried forward into a more propitious phase. But with marasmic individuals it might have a deleterious effect upon the general health, while the chances of its furthering the healing process are more than problematical. Finally, when it is employed, it should be at the inception of the symptoms and not after suppuration has declared itself.

What remains to be done if thus much be rejected? For a considerable time I have been in the habit of employing the so-called *constrictive bandage* in cases of circumscribed suppuration, and alternating it with warm aromatic applications when treating marasmic individuals. The former of these applications I cannot praise too highly. I have, within the last four months, seen its use followed by remarkable results in three cases which were running an anomalous course, and where some of the symptoms were more developed than in the present case.* In applying the constrictive bandage the orbit is packed in almost the same manner, only somewhat more plentifully, as when the compressive is used; the whole being firmly secured by a flannel roller passed three times over the eye in question.† One shrinks at first from placing such a bandage on an eye where the lid is swollen and an active suppuration going on; experience shows, however, that when the proper indications are met, the

* In one of these cases the commencement of a peripheric abscess existed, two thirds of the corneal edge remaining, it is true, free; in spite of which the eye was saved, and hopes are entertained from a future iridectomy.

† I shall take advantage of some proper opportunity to advert to some points connected with this bandage; suffice it here to say that it has an entirely different effect from the pressure bandage, inasmuch as it not only actually supports the eye, but firmly presses the flap.

patients find the application comfortable, and that swelling and suppuration diminish to an extent that, under such desperate circumstances, could have been expected with no other method. Such a bandage is ordered for this patient, with directions to have it changed every three hours, subsequently at longer intervals, in case the suppuration shows the desired diminution. Between the applications of the bandage, camomile fomentations at a temperature of 95° are to be used on the lids, it being expected that they will contribute to the termination of the suppurative process. The diet is not to be lowered; the patient, on the contrary, is to be plied with bouillon and to drink milk.

January 7th.—During the last eighteen hours the bandage has been applied three times. The female attendant states that the first time it was removed there was a decided, and the second a notable diminution in both the swelling and discharge. On removing it now only the under surface of the lowest layer of charpie is found permeated by a purulent discharge, which is certainly infinitely less abundant than yesterday. The secretion begins to dry along the palpebral aperture, a fact which also denotes a diminution in quantity. The lid is still swollen, though unmistakably less, its folds are becoming less broad, more prominent, while here and there is seen a tendency to wrinkle. On opening the eye, as much improvement is seen as could have been expected in so short a time. The purulent infiltration at the lower part of the wound is beginning in some places to come away in the shape of a muco-purulent coating. The remaining corneal opacity extends as high up as yesterday; has changed its color, however, from yellowish to gray. Incisions are made in what chemosis exists; the constrictive bandage is directed to be left on from six to eight hours, and camomile fomentations to be used but half an hour at a time in the interval.

January 9th.—During the last two days improvement has been more and more decided. The bandage was finally left on twelve hours together, and on its removal the lower layer of charpie was found dry, and the bit of linen covering the lids was all that the secretion caused to adhere; this was, moreover, dry. The swelling of the lids had ceased, and the chemosis disappeared. By the aid of the forceps a species of muco-purulent slough could be picked from the wound, and its removal brought into view the purulent infiltration of the edge of the wound, still in existence, but tending to consolidation. The infiltration of the flap had hardly a tinge of yellow in its appearance, but looked a good, healthy gray. Through its upper and already transparent edge could be seen the border of the discolored pupil (iritis propagata). The constrictive bandage was ordered to be continued and atropine to be instilled; the warm fomentations were omitted.

January 20th.—The progress of the case has been as favorable as could possibly have been anticipated. The purulent infiltration in

the vicinity of the wound has become more and more consolidated, and will leave a cicatrix about $\frac{3}{4}$ " in breadth. A tissue in process of organization may be seen to extend from the wound to the pupil, indicating the course of the previous suppuration. The effect of the atropine may be seen in an enlargement of the pupil upwards, which is but very lightly filled with recently developed material, and allows the patient to count fingers held close to her. Although the artificial pupil is entirely filled and contracted, it must be allowed that its existence has materially contributed to the relatively favorable course of the transplanted iritis. Without it we should probably have had a suppurative and total fusion between the edge of the pupil and the capsular cavity, an accumulation of exudation on the posterior wall and cyclitis at a time when any fresh operative interference was not to be lightly undertaken. In contrast with this we have the iris in an entirely normal plane, nowhere bulging forward, but slightly disorganized, free from large vessels—in short, the ciliary region evidently uninvolved.

That the eye did not fall a prey to diffuse suppuration, nay more, that a favorable *terrain* has been gained for a subsequent iridectomy, we are indubitably to ascribe to the use of the *constrictive bandage*, kept up for five days after the date of the last record. In this therapeutic conclusion I shall be confirmed by every colleague whose own experience has enabled him to gain an insight into such incidents as have been described, occurring so soon after the operation of extraction. Had it been possible for me to have seen the patient on the 6th, about eight hours before the evening visit, and thus previous to the more abundant suppuration, and at that time to have ordered the constrictive bandage, it is probable that the use of this, under more favorable circumstances, would have produced more brilliant results.

Bibliographical Notices.

Recent Advances in Ophthalmic Science. By HENRY W. WILLIAMS, M.D., Ophthalmic Surgeon to the City Hospital, Boston; University Lecturer on Ophthalmic Surgery in Harvard University; Member of the American Ophthalmological Society, &c. &c. Boston: Ticknor & Fields. 1866.

Of the 162 pages of this little duodecimo volume, the first 26 are devoted to the ophthalmoscope; the last 60 to matters connected with refraction and accommodation; in the intervening pages some account is given of the functional examination of the eye, the Calabar bean, and of various diseases and operations.

When it is considered how much time is required for the careful reading of the larger works on these subjects, such as those of Helmholtz, Fick, Donders, Giraud-Toulon and the elaborate articles in the

Archiv für Ophthalmologie, it is to be expected that the general practitioner, with but little time to spare from the studies pertaining to the more urgent duties of the profession, will gladly avail himself of this instructive and interesting volume.

To the opinion expressed on page 38, that the upper section in extraction is "the only one properly admissible, especially in these methods," that is, where iridectomy is also done, it might be objected that in some cases, if the patient is feeble, it would be well to incur whatever disadvantage there might be in the lower section, since by this method we could avoid the ocular congestion and bodily depression caused by the ether, circumstances probably unfavorable.

- We should prefer that on page 18, instead of Liebreich's ophthalmoscope, Jäger's had been mentioned, as in our opinion this latter is the best, owing to its having the weak-light* mirror as well as the strong-light reflector.

Appended to the volume is a series of test-letters after the plan of Jäger and Snellen, the use of which is explained in the body of the work; and a table of horizontal and parallel lines for the determination of the presence and direction of astigmatism, which will be quite useful to the general practitioner. The mechanical execution of the book is perfect, and it is beautifully illustrated. A few inaccuracies have crept in, which we hope to see corrected in another edition, the size of which might also be increased without being disproportionate to the subject.

G. II.

Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales (*An Annual Dictionary of Medical Sciences and Institutions*). By P. GARNIER, M.D., &c. &c. (Second Year, 1865.) One vol., 12mo., pp. 740. G. Baillière, Paris, January, 1866. Boston: A. Williams, 100 Washington Street.

THIS little work, the first volume of which we noticed favorably in a previous number of this JOURNAL, comes to us with increased evidences of worth and assurances of marked success. Its reputation is established, and its fortune assured. It must increase in favorable estimation, because it supplies a real want of the profession—the preservation of the truly useful where it can be readily accessible in time of need. In the abundance of material this volume has increased in size 240 pages above that of its predecessor. This, by the way, is rather a doubtful progress, for let us whisper in the ear of the author that it is the *wheat without the chaff* that is to be desired in a work of this kind. Nevertheless, we must acknowledge that this increase is not without reason, inasmuch as the author has multiplied the bibliographical notices, an useful addition, and has added a few pages of short biographies of the worthy dead, very properly. Besides, the author has also, very wisely for the good of his readers, after concisely stating the facts, observations made, or positions taken in the articles analyzed, given with creditable impartiality a corrective and appreciative criticism on the questions raised or the progress assumed. The present volume gives evidences of his independence in this regard, and we assure him that in no way can he make his work more

* Some account of the value of this method may be found in this JOURNAL, Dec. 25, 1862.

useful to the profession than by frequent, free and just criticism. In this way already a useful guide, the Dictionary may become an eminent authority for the active practitioner, and take highest rank among the publications of the day.

The volume before us merits a place on the table of every progressive physician. It indicates, in alphabetical order, the scientific facts and professional novelties developed during the past year. Among the numerous articles well worthy of attentive perusal is a succinct account of the principal epidemics of the year 1865; the cholera in various places, the relapsing fever in Russia, cerebro-spinal meningitis in Germany, yellow fever in the island Reunion, the contagious typhus of horned cattle, &c. &c.

"The new appearance of the cholera," says M. Latour, "has furnished a large and sad contingent. In as many paragraphs, M. Garnier treats of its origin, its route, contagion, indicating the facts for and against this, its pathology, its diagnosis, prognosis, prophylaxis, premonitory symptoms, the isolation of the affected, and the treatment. Under each of these he indicates all that the year has produced interesting and new. This article, constructed with much intelligence, contains all that the practitioner need retain from this new and cruel experience."

In like manner under *Jurisprudence*, and *Legal Medicine*, may be found judicial decisions relating to illegal practice, medical responsibility, compensation, suggestions, &c., valuable in themselves, and interesting to those who seem to think that "they order these things much better in France." The article on *tobacco* is worthy the attention of those who like to puff themselves. The researches of Lance-reaux on the anatomical lesions produced by *alcoholism* are equally well set forth. Under *Anæsthesia* the advocates of ether will find something to interest them in the evident change of opinion taking place on the continent. *Medical pathology* in all its departments receives due attention, and fills many of the pages of the Dictionary.

Thus opening the volume at random, we have indicated, very imperfectly, it is true, the manner of treating the various subjects that fell under our notice in this casual way of examining the work. But open it where you may, it will not be found wanting in interest or variety—all at least that the year itself has produced. If we have indicated a few points for possible improvement, it is not because it fails in any particular, but because no one can fully answer the extreme requirements of every examiner. If not perfect, it is on the way to perfection, well nigh to its proposed destination. Other annuals and semi-annuals might take this for their model, with evident advantage to themselves and their patrons. We are glad to see that it is appreciated at home and abroad, and to know that its future continuation is beyond contingencies. It is a truly valuable book, which, we repeat, every intelligent physician should possess. *

At the session of the Medical College of the State of South Carolina for 1865-6 the number of matriculants was 34, and at its close the degree of M.D. was conferred on 13 candidates.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

FEB. 26th.—*Hydrocephalic Skull*.—Dr. JACKSON exhibited the specimen, which had been sent by Dr. CHARLES H. STEDMAN, with the following history of the case :—

"It was the cranium of a girl born in this city. Becoming an orphan at a very early age, she was admitted to the House of Industry, where she was instructed in the usual branches of knowledge taught in our common schools, until at length, such was her capacity, she was entrusted with the teaching of the other pauper children. She was of excellent character for intelligence and moral worth, and gave much satisfaction to the officers of the House. Being fitted, as was thought by the Directors, to earn her own support, she was discharged from the House, and found employment in a private family in the city. Here, from exposure incident to her situation, she contracted a cough. A decline soon followed, and she was compelled to return to the House, where at last she died of consumption at the age of 16.

"The skull measures $24\frac{1}{4}$ inches in its circumference, and over the head, from one auditory meatus to the other, $17\frac{1}{4}$ inches. There is nowhere any deficiency of bone, and yet it is in no place more than one eighth of an inch in thickness. Its greatest diameter is from the centre of one parietal bone to the other, but presents no unseemly deformity.

"On examination after death, the brain was found floating, as it were, in a large collection of water, throughout which many patches of lymph apparently were diffused.

"She died peacefully, and retained her consciousness as long as she was able to respire."

Dr. J. had measured the internal capacity of this skull, and found it to be 176 cubic inches.

FEB. 26th.—*Pyæmia*.—Dr. CABOT reported the case. The history is taken from the records of the Massachusetts General Hospital.

Dec. 18th.—B. F., æt. 53. Patient is a strongly built but not a very healthy looking man. A week ago, while skinning a rabbit, a broken fragment of bone pierced the thumb of his right hand, on the flexor side between the first and second phalanges. It was immediately withdrawn, a very slight wound being produced. That night he felt severe pain in the thumb, which by the following morning was somewhat swollen. The swelling has ever since increased, and now the whole hand and forearm are involved. An incision was made yesterday at the seat of injury, and there is now a slight purulent discharge from the opening. Not much discoloration of skin. No fluctuation at any point. Pain constant. Pulse very small. Poultice.

19th.—At the morning visit the patient was etherized, and three incisions were made, one enlarging the former opening.

On the 20th, ordered two grains of sulphate of quinine three times a day.

During the next month, though several free openings had been made, the hand continued to suppurate freely, and on Jan. 22d extensive caries of the carpus and metacarpus was discovered, and a few

days afterwards the hand was amputated a little above the wrist. A posterior flap was made and retained in place by a compress and bandage, no sutures being taken. From this time he continued to improve steadily, and the stump healed kindly. He continued, however, to have an anæmic look, and could never sit up for any length of time without feeling faint. Was ordered five grains of citrate of iron and quinine three times a day. Pulse had all along been very small.

On the night of the 18th of February had a severe chill, and in the morning was found bathed in a cold sweat. Very pale. Pulse small and weak, 95. Complete loss of appetite. The following night had a second chill.

On the 20th, pulse 136. Skin had assumed a yellowish look. Brandy, milk and beef-tea. *R.* Sodæ sulphit, grs. x., every two hours.

Feb. 21st.—A third chill. Much prostrated. Pulse intermittent.

On the 22d had two chills. Give sufficient stimulus to keep on the verge of intoxication.

23d.—No chill. An examination of the urine showed numerous granular and epithelial casts of the tubuli interspersed with epithelial cells and debris. Bile present, but no albumen.

24th.—Another chill this morning. The stump which, up to the 18th, had been cicatrizing rapidly, has ceased to do so. The flap has retracted so that the radius is bared for about an inch. Granulations flabby. No discharge. Bowels very free; no diarrhœa; dejections foetid. Towards evening he began to fail rapidly, and died at 12, P.M.

Autopsy.—*Heart* normal, except a congenital opening in the foramen ovale. *Lungs.*—Upon the lower lobes of both lungs were found, chiefly on the posterior aspect, several superficial purulent deposits. *Liver.*—In the centre of the right lobe there was a purulent deposit, which was an inch and a half in diameter. *Kidneys.*—The pelvis of the left kidney contained uric acid concretions. In the right kidney there was a calculus the size of a horse-chesnut and irregular in shape. *Spleen* somewhat enlarged. Other organs normal.

MARCH 12th, 1866.—*Eruption caused by playing with the Toy called "Pharaoh's Serpents."*—Dr. WHITE reported the cases.

A young woman, supposed to have had erysipelas, had a relapse, and on account of the strange appearance of the skin, Dr. White was called in consultation. He found an eczematous eruption on the face and hands and some portions of the body, resembling that resulting from "ivy poisoning." On inquiring, the attending physician found that she had amused herself by burning a large number of "Pharaoh's Serpents" just before she was first taken sick, the gases of which came in contact with her skin, and again just before the relapse. Soon after this case occurred a woman presented herself among the out-patients of the Massachusetts General Hospital, who had a similar eruption on the face and hands. Her son had broken up several of these "eggs" in his pocket and had handled the fragments freely. She had mended his pockets the night before the eruption showed itself, and had removed the debris with her fingers without washing her hands before going to bed. The boy, who was a mulatto, presented the same appearances as his white mother, although the symptoms were not so severe.

Dr. White said that in this country violent inflammation of the

lungs had ensued in one case after inhalation of the vapor arising from the combustion of these little toys, and that in Europe several cases of poisoning had occurred from eating them by mistake for bonbons.

MARCH 12th.—*Labor ; Spontaneous Evolution.*—Dr. ELLIS reported the case.

He was called at 2 P. M., and found the patient in labor for the fifth time. The os uteris was only partially dilated, and the membranes were unruptured, but through them could be felt the fingers of a hand, which by their position showed that the back of the child was turned towards the left side of the mother. The hand gradually moved to the right, the elbow was felt, and in its turn passed on, until, after several hours, the membranes ruptured, the breech presented, and the child was born alive. When it was evident that the change of position was taking place, attempts were made to favor it by appropriate external manipulations, probably with very little effect. The only other interference was at the time of the passage of the head, which was hastened by traction to avoid prolonged pressure upon the cord. The child was a male, of quite the average weight, and so large that some astonishment was felt when a second head presented, which proved to be that of a smaller but perfect female. The labor terminated at 2½ A. M., about twelve hours after the patient was first seen. It is the opinion of the mother that the membranes ruptured at 5 P. M. The time certainly seemed much longer to the attending physician, but no record having been made, the time occupied in the above evolution must remain doubtful. Although the result was favorable, Dr. Ellis asked whether, in the opinion of those present, he was justified in deviating from the ordinary mode of procedure, after observing the change which was apparently going on. He did not feel any less satisfied with the course pursued, when the appearance of the second child showed how large a choice of legs and arms there would have been in any attempt at turning.

Dr. STORER thought such an occurrence unusual, save when the child was quite small. He thought Dr. Ellis had been very fortunate, and had done all that ought to have been done in the case under his charge, but considered it better practice to turn, as it is not generally safe to wait.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 10, 1866.

PHYSICIANS' ADVERTISEMENTS.

THE frequent abuse of the mistaken leniency which allows a physician publicly to announce or recommend himself, has become so frequent among us of late, as to call for some notice from us and for stringent action on the part of our State Medical Society. Until recently the announcement of a change of residence, or of a resumption of practice, was the extent of what was considered justifiable by the laws of professional decorum, although even these exceptions have sometimes overstepped the limits of propriety by being kept too

long before the public eye, but now we find the newspapers of this city every day containing the advertisements of members of our body which can in no way be distinguished from those of some professional quacks. Not satisfied, moreover, with seeking notoriety by special and extra puffs in the columns of the daily journals, disgraceful exhibitions of machinery and written promises to cure are conspicuously presented to the gaze of the passerby in office windows, pamphlets containing accounts of wonderfully successful cases are published for public distribution, and self-laudatory circulars are issued for the medical reader.

There is another class of advertisements which is also becoming more frequent, and which, although hitherto considered at least not improper by some of the profession, is so liable to abuse in its present undefined condition, that it has become a matter worthy of grave consideration. We mean the cards of so-called specialists published in a medical journal. It is a custom which has so gradually sprung up in this city as to have become an almost recognized law amongst us, and we do not in the least intend to reflect upon the gentlemen who have availed themselves of its privileges. It is a custom, however, which is confined to ourselves, and which would be considered entirely unprofessional in any other part of the country. Why then is it allowable here? It has been urged in its favor that is for the public good that the profession should be made acquainted with the fact of the existence of those who have particularly studied those branches of our science which require for their mastery more time than is at the command of the general practitioner. There can be, of course, no question as to the advantage, the necessity even, of a division of labor in the study and practice of medicine. It is so well recognized in all the sciences, that we do not propose to discuss it at all. It is also desirable that the profession should know who are the most skilled in these special branches, that patients may be entrusted to those who can employ in their behalf this superiority of training. The question is in what way shall the profession gain this information. It is evident that the mere announcement by a published card that Dr. So-and-so gives his special or exclusive attention to this or that class of diseases in no way indicates his fitness or professional standing. Specialties are multiplying rapidly, and are taken up after so little preparation, in many instances, as a ready road to celebrity and wealth by the young practitioner, that an intimate knowledge of the character, education and experience of the claimant for public confidence has become essential. It is evident that this cannot be obtained from or imparted by the advertisement of the interested party, and that if all specialists advertised themselves, the public and general practitioners who are unacquainted with the professional reputation of the individual must, in some cases, find it as difficult to make choice of the person to whom they shall commit themselves or patients as if no such announcements were made; not to mention the possibility of selecting one whose name would have never reached their ears through the recommendations of his professional brethren. But all specialists do not advertise. There are those who look upon the ordinary announcement upon the covers of a medical journal as a self-recommendation to the public, and who believe that the specialist is no exception to the general rule that each man's success should rest wholly upon

his own merits. Evidently those who think differently gain a great advantage at the start over the latter, which would not be the case if one rule regulated the conduct of all. Whether the custom be indirectly beneficial to the profession or not, there can be no doubt as to the self-interested motive of the advertiser.

As we have before stated, our Journal is the only one in the country which publishes such personal announcements. The custom was well established when we assumed its editorial management, and it was not for us to act as judges in a matter of such importance. We could not say to those who had made use of it, we wish to make our Journal as free from all appearances of unprofessional conduct as our exchanges, and other journals and other medical communities look upon even this class of advertisements as unprofessional. We have, however, in several instances felt obliged to refuse to publish the cards of other members of the Massachusetts Medical Society, because they had resorted to other methods of public advertising, although we have felt that in so doing we were acting somewhat arbitrarily, and that it would be better if there were one rule by which all should be governed. It has, in fact, become impossible to draw any sharp line of division between the disgraceful class of public advertisements first noticed, and the simple announcement of the specialist upon our covers. They are all directly or indirectly prompted by self-interest, and directly or indirectly addressed to the public; yet the former is employed by those who degrade our art to the level of the lowest trade, and the latter by some of the most honorable amongst us, and who have done much to make it a pure science. We desire that this matter may no longer be left to be regulated by self-interest or a law of custom, and that the editors of a journal shall not be obliged to do the duties of an ethical police.

We recommend this subject to the earnest consideration of the Massachusetts Medical Society at its approaching meeting, and would suggest the adoption of a code similar to that passed at the New York State Society a year ago, which we append.

"Resolved, That in the opinion of this Society it is impossible to define the limits of medical specialties, either in medical or other journals.

"Resolved, That advertisements indicating location and residence, are the utmost limits of self-announcements, consistent with professional dignity; and that all reference to special branches of medical practice, as extra inducements to patronage, should be deemed violations of the Code of Medical Ethics.

"Resolved, That hereafter any medical practitioner so offending shall be deemed disqualified as delegate to or for membership of this Society, and if already a delegate to, or a member thereof, shall be deemed a fit subject for discipline.

"Resolved, That this Society recommends all Medical Societies in the State of New York to adopt the foregoing resolutions, with a view to establish the true dignity of our profession.

"Resolved, That the foregoing resolutions be transmitted to the American Medical Association at its next meeting, as an expression of the opinion of the Medical Society of the State of New York, and that for this purpose a committee of presentation be appointed."

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

FIRST DAY.—This body met May 1st, at 11 o'clock, in the main hall of the Concordia Opera House, on Eutaw St., near German St., Baltimore, there being about 250 delegates present. The President, Dr. D. H. Storer, of Boston, took the chair. After being called to order, a very impressive prayer was offered by Rev. Dr. Spees.

The Chair stated that the first business under the rules was the reception of communications from the Committee of Arrangements. Dr. C. C. Cox, of that Committee, in an eloquent address, gave a warm welcome to the Association, and hoped that when the short stay of the members is ended, they will have cause to retain kindly remembrances of the Monumental City. He expressed his regret that so few delegates from the South were present, and hoped now that peace has come they will again return and aid the Association with their learning and experience in the great work the profession has before it. He paid a high compliment to the surgeons on both sides during the late war, and referred in pathetic terms to the many learned men who have been taken away by death since the Association met in Baltimore eighteen years ago. He closed by again warmly welcoming the visiting brethren.

The hour of meeting during the session was fixed at 9 o'clock, A.M.

Under a suspension of the rules, Dr. C. C. Cox presented several papers in reference to the case of Dr. Montrose A. Pallen, of St. Louis, whose name was last year erased from the list of delegates, on charges preferred against him, showing clearly the innocence of Dr. P., and moved that they be referred to the Committee on Medical Ethics.

Dr. Toner, of Washington, moved, as an amendment, that the Association take up the subject without any reference to the Committee.

Dr. Ordway, of Boston, advocated the amendment, and stated that as the action of the previous year had been done without reference to a committee, he thought that the reparations should be as decided and prompt in the present instance. Dr. O. further remarked that as one of the protestants to the action of the Association last year, it was eminently proper that this apology should be made by a direct vote.

Dr. Davis, of Illinois, supported the original motion, on the ground that, as the action of the Association in this matter was wide spread upon the records, it was only just to Dr. Pallen that his vindication of the charges should be as full and thorough on the journal as possible. By a mere motion to rescind this would not be done, and through a committee a full report and thorough exoneration would be made public.

Dr. Cox stated that he had an interview with Dr. Pallen on Monday, and that Dr. P. preferred that the matter should be referred.

Dr. Owens, of Maryland, asked for information with regard to the case, whereupon the Chair stated that at the session held last year in Boston, charges had been preferred against Dr. Pallen, then a member of the Association, of disloyal conduct and practices, and a resolution had been there passed to erase his name from the list of members, and the question now was to restore Dr. Pallen to his membership, the statements against him having been proved to be unfounded.

The main question having been called, the papers were referred to

Drs. Hooker, Brinsmade and Davis, as a Committee on Medical Ethics.

A list of names of delegates, from the Committee on Credentials, was read by the Secretary.

Under the rule for the reception of members by invitation, James E. Rives, of Fairmount, West Virginia, was received.

Dr. Thomas E. Bond moved that the committee to whom was referred the case of Dr. Pallen, be instructed to report the expression of their profound regret at the Association being hurried into its unjust action to Dr. Pallen, and that they hope that Dr. Pallen will accept this acknowledgment as an expression of a frank apology for the great wrong done him; which, together with an amendment, was laid on the table.

Dr. Storer, President of the Association, read his annual address, which was listened to attentively, and, on motion, was referred to the Committee on Publication. A unanimous vote of thanks was tendered to Dr. Storer for his excellent address.

The Committee on Ethics, to whom was referred the case of Dr. Pallen, announced their readiness to report, which was read, and speeches made thereon by Drs. Tyler, Bond, Ordway and Owens, the last named moving that the report be recommitted, with instructions to incorporate Dr. Bond's resolution, which had been previously tabled.

Dr. Hooker, from the Committee, then presented the following amended report, with the preamble and resolution, which were unanimously adopted:—

"The Committee to whom were referred the papers in relation to the expulsion of Dr. Montrose A. Pallen, at the meeting of the Association in Boston, respectfully report that they have examined the documents and evidence referred to them, embracing papers endorsed by Lient.-Gen. U. S. Grant, the Vice Consul of the United States at Montreal, and many citizens of Missouri, and are fully satisfied that the statements on which his expulsion was based were entirely unfounded, and therefore, regretting the injustice done both to Dr. Pallen and the association, we recommend the following resolution:

"*Resolved*, That the preamble and resolution adopted by the association at their annual meeting in Boston, June, 1865, expelling Dr. Pallen, be hereby rescinded, and that Dr. Montrose A. Pallen be restored to his previous membership in the association."

Dr. Ordway sustained the same, and moved that a committee of three be appointed to meet Dr. Pallen and inform him of the unanimous action of the convention.

Dr. Owens moved as an amendment that Dr. Cox be chairman, which was accepted by Dr. Ordway.

The chair then appointed Drs. Cox, Ordway and Sayre.

The committee soon after returned with Dr. Pallen, who was conducted to the platform amidst applause, and presented to the association as perfectly exonerated from all charges. Dr. Pallen, in reply, stated that he was deeply gratified at the action of the association; that its action in regard to him had almost overwhelmed him, but that, whilst buffeting with the waves of infamy and disgrace, he was comforted by the bright light of conscientious performance of duty. The man who would have dared to reproach him, with even a hint of

poisoning the Croton reservoir, would have been spurned with contemptuous indignation. On the battle-fields of the war he had been stayed by no danger in the performance of his professional duty, and whether the wounded man was clad in gray or in blue, he had ministered to him, regardless of the time or place. He returned his thanks again to the association, and also to Dr. Cox for his manly conduct, and closed with the expression of his gratitude for the warmth of his reception.

The call of special committees and volunteer papers on professional subjects for the purpose of being referred to appropriate sections was then made, lasting some time.

Dr. Jewell announced the presence of Dr. Marsden, from Canada, and moved that he be received as a permanent member, and be invited to take a seat on the platform; which was agreed to.

On motion, Dr. E. Brown-Séquard, of Boston, was invited to address the association to-day at 11, A.M., on the treatment of nervous disorders.

After some business announcements, the association adjourned until 9, A.M., the various sections meeting during the afternoon to prepare business.

In the evening there was a promenade concert and entertainment to the visiting delegations at Concordia Hall, given under the auspices of the committee of arrangements, which was, notwithstanding the rain, fully attended, many ladies being present. The next evening private soirees were to be given the members of the association by Dr. C. C. Cox, No. 23 McCulloh street, Dr. T. S. Bond, 82 Read street, and Surgeon Jos. Simpson, U. S. A., No. 40 Calhoun street. The entertainment tendered by the mayor and city council will follow.

TREATMENT OF CHOLERA IN GREECE.

Extract from a letter written by Rev. George Constantine, of Athens, Greece, and communicated for the Journal.

ATHENS, GREECE, December 29th, 1865.—The following is a successful yet easy way of treating cholera. It was written at my request by A. N. Goudas, a prominent physician at Athens.

(Translation.)—As soon as one is attacked with diarrhœa, vomiting, great distress at the stomach, or with cramps at the extremities, the abdomen should be covered at once with a strong mustard poultice. When the skin becomes red and smarts let there be rubbed on the surface thus excited, either with a flannel or with a painter's brush, a solution of one drachm of sulphate of quinine in one ounce of pure alcohol, or let the solution consist of one and a half drachms of sulphate of quinine with one ounce of water, to which add as many drops of sulphuric acid as will be needed to dissolve the quinine.

The patient, at every quarter or half an hour, ought to take a dose composed of ten grains of sulphate of quinine or tincture of quinine mixed with a large quantity of pulverized nutmeg or cinnamon, until he has taken four such doses. Should he vomit up any of the doses it should be at once made up. The patient may drink from time to time a little lukewarm chamomile tea, tilis or ambuco, to which a few drops of rum may be added.

Now since in time of cholera danger is imminent, it is well that

each person be provided with two bottles—one containing the solution of quinine, the other a solution of half a drachm of oil of mustard mixed with an ounce of alcohol. Apply this by flannel or painter's brush to the abdomen, and it produces the same effect as the poultice. Then rub as aforesaid the solution of quinine on the place thus excited.

During the cholera season each man should be careful of his diet, avoid sorrow, fear, anger, exhaustion; indulge all good habits and occupations, but do all things moderately. He should avoid food consisting of milk, fish or beans.

By this treatment, Napoleon Delengay, the first physician in the cholera hospital of Constantinople, writes me that he has cured many patients. Dr. Georgiades writes that he has cured upwards of 2000 cases at Constantinople, and three other physicians in the same city used it with great success. From Ishmail, Dr. Corydalis writes that out of 42 cases he cured 40, while Dr. Erstain, at quarantine, cured 40 more. By this treatment many heads of families have written me from Constantinople, Wallachia, Moldo-Wallachia, Dardanelles and other places, that they have saved many members of their families.

I remain your obedient servant, A. N. GODDAS, M.D.

A NEW disease is described by Dr. Cantani under the name of acetonomy. It consists in the development of acetone, a volatile liquid in the organization by the fermentation of organic matters, especially grape sugar, and is formed by errors of diet, the abuse of alcoholic drinks, obstinate constipation, in variola, scarlatina, typhoid fever, diabetes and diseases of the stomach. Its presence in the blood is supposed to exercise a poisonous effect upon the central and peripheral system of nerves. It may be obtained by distillation from the urine.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 5th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	35	31	66
Ave. mortality of corresponding weeks for ten years, 1856—1866	39.1	39.9	79.0
Average corrected to increased population	00	00	86.28
Death of persons above 90		0	0

ERRATUM.—In our leading editorial of last week, in the tenth line, for "medical defects" read *radical defects*.

MARRIED,—In Roxbury, 3d inst., C. Edwin Miles, M.D., to Miss Eunice Pierce Dyer, both of Roxbury.

DIED,—At Hingham, 8th inst., of apoplexy, Dr. Robert T. P. Fiske, aged 66 years.

DEATHS IN BOSTON for the week ending Saturday noon, May 5th, 66. Males, 35—Females, 31. Accident, 1—anæmia, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 3—inflammation of the brain, 1—bronchitis, 3—consumption, 14—convulsions, 1—diarrhœa, 2—diphtheria, 6—dropsy, 2—dropsy of the brain, 2—epilepsy, 2—typhoid fever, 3—disease of the heart, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 1—old age, 2—paralysis, 1—premature birth, 2—puerperal disease, 1—scalded, 1—smallpox, 1—suicide, 2—thrush, 1—unknown, 5.

Under 5 years of age, 23—between 5 and 20 years, 9—between 20 and 40 years, 14—between 40 and 60 years, 7—above 60 years, 13. Born in the United States, 46—Ireland, 15—other places, 5.

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PATHOLOGICAL ANATOMY OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.

By W. F. MUNROE, M.D., Boston.

IN order to understand the theory or treatment of any disease, a knowledge of its pathological anatomy is absolutely essential. This fact is more often overlooked with regard to cholera, perhaps, than to any other disease, and for the very natural reason that no investigations in this direction have as yet thrown much light upon the subject. Still, to properly appreciate the numerous theories constantly brought forward, the results, both positive and negative, of the *post-mortem* examinations should be present to the mind. To bring together facts scattered through many different treatises has been the object of the present *résumé*.

There are some few cases on record where patients have succumbed to the prodromic symptoms before the cholera proper had declared itself, but as there have been preserved none of the pathological changes I shall pass at once to those recorded after death during the second period, or that of collapse.

In these cases there is frequently a sudden elevation of temperature; invariably the body loses its heat but slowly. The muscular spasms often continue to a more or less extent, and, in India, cases are reported in which the attendants have been forced to secure the limbs of the dead, so great was the moral effect upon the neighboring patients. The blueness of the face and members remains; the eye is dull; the subcutaneous cellular tissue is dry; the muscles are dark colored and but slightly consistent (exceptional, Valleix). This bluish appearance is also noticed in the greater part of the spongy bones, and even to the roots and crowns of the teeth. The digestive canal is pale and discolored in places, but in general offers a dark color, due to the arrest of the blood. From the œsophagus to the rectum, but particularly at the end of the ileum and in the cœcum and colon, is often found an eruption of hard, opaque bodies, about the size of the head of a pin, which are nothing more than the

swollen follicles, such as are often found in other diseases where the serous exhalation is increased. The stomach and intestines contain a variable quantity of a flocculent liquid, sometimes acid, sometimes alkaline in reaction, and of an insipid odor. Most authors deny the presence of any bile, but Dr. J. C. Dalton and Niemeyer say that the bile is present, but recognized with difficulty from its extreme dilution. In color this liquid varies from a greyish white to a chocolate, the darker being more common in the lower parts. Its nature is generally considered to be that of the serum of the blood, although Andral and Bouillaud consider it mucous, and Bouillaud attributes to it some specific qualities. The flocculi floating in it, as well as the creamy, grayish-white membranes with which parts of the entire digestive canal are covered, consist of epithelial scales in different stages of perfection. Valleix, Bouillaud and several others have occasionally noticed in the gall-bladder the presence of a liquid resembling that found in the intestines, while J. Brown has usually found it turgid with black blood. Some cases are reported in which it has been distended by bile. Virchow has signalized an enormous accumulation of fat in the villi of the intestines, a fact attributed to the ordinary occurrence of the attacks during the process of digestion, when the vessels are loaded with chyle. In other respects the biliary and lymphatic vessels are unaltered. The kidneys, particularly in their cortical substance, are engorged with black, diffuent blood, and a certain flaccidity of their tissue is noticed by Dr. Dalton, as well as a peculiar smell, resembling that of molasses, which is exhaled from their cut surface and replaces the ordinary renal odor. The liver is congested with black blood; the spleen is generally small and hard, while the other parenchymatous tissues are congested and of a peculiar bluish color; the bladder, ordinarily empty and retracted, but occasionally containing a certain amount of altered mucus, exhibits on its internal surface membranous patches similar to those found in the digestive canal; the lungs are usually collapsed, flabby and hardly obstructed—rarely, however, there is extensive congestion, and apoplectic centres even have been found in them. Small patches of the whitish membrane spoken of in connection with the digestive canal are sometimes found in the bronchial tubes. The heart is small, flabby and easily torn; the right ventricle filled with black, sticky blood, the left usually empty. Ecchymoses are sometimes found on the pericardium and on the endocardium of the left ventricle. The whole venous system is engorged with the same black, sticky blood, which coagulates very slowly and parts with but little if any of its serum. Upon exposure to the air, according to Rayer's investigations, it oxidizes more slowly than in its normal condition, owing to the absence of the saline substances which favor oxygenation. Schmidt found the oxygen diminished more than one half. The fibrin, albumen and salts have been found deficient by most chemists, although Robertson, of Edinburgh, states that the fibrin is

usually in large amount, and Andral that albumen is present in normal quantity. Becquerel concludes that the proportion of the globules is increased; the serum, less abundant and denser, contains an abnormally large proportion of extractive matters, salts, and particularly fatty matters. Microscopic examination has shown the globules normal in appearance, but Donné has remarked a certain viscosity, which prevents them from slipping easily in the liquid in which they swim. Dr. Parkes has observed that, in some cases, the addition of a few drops of the liquid taken from the intestine would restore the arterial color to the blood. The serous membranes are all more or less dry and sticky, the peritoneum particularly so; the cerebral and cerebro-spinal vessels are more or less engorged; the cerebral substance is likely to be congested, and even the nerves and their ganglions may be in the same condition, although the nerve tissue is never altered. The semilunar ganglion, thought by some authors to be the original seat of the disease, has been found normal by the majority of pathologists.

In subjects who have died in the period of reaction, there is less venous but more active and inflammatory congestion; the brain is dotted with puncta cruenta; the lungs are sometimes inflamed or hepatized; the blood is redder and contains more serum; the peculiar liquid has disappeared from the digestive canal; the serous membranes are moist; the agminated follicles are occasionally a little swollen, but without showing any of the characteristic appearances of typhoid fever; the bladder contains a variable quantity of urine.

Thus far the alterations given us by pathologists are (1st), the general injection of the venous system, giving the peculiar color to nearly all the organs; (2d), the characteristic liquid found in the digestive canal; (3), the absence or altered condition of the mucus in the different cavities which are lined by a mucous membrane; (4th), the development of the glands of the intestine—evidently most insufficient grounds for the basis of anything more than a purely speculative hypothesis.

CASE OF POISONING BY CYANIDE OF POTASSIUM.

[Communicated for the Boston Medical and Surgical Journal.]

DR. TAYLOR says of the cyanide of potassium, that it is one of the most formidable poisons known to chemists. It has destroyed life in a quarter of an hour; a dose of five grains has proved fatal in three instances. The symptoms which the cyanide produces are similar to those occasioned by prussic acid. He reports five cases of poisoning, of which one recovered. The dose, according to the Dispensatory, is the eighth of a grain.

The preparation which the patient took in the present instance was that used in electro-plating, and consisted of the following ingre-

dients:—water one gallon, cyanide of potassium one pound, and chloride of silver one ounce. Of this about three teaspoonfuls were taken, which would contain twenty-three grains of the cyanide. The history of the case is as follows:—

April 19th.—The patient, J. M., is a strong and healthy man, employed as a porter in a machine shop. While at work this morning, and feeling very thirsty, dipped a tin cup into a jar of liquid, which he supposed to be water, and brought it hastily to his lips. He had no sooner tasted of the liquid than he discovered that it was not water, but not in time to prevent himself from swallowing about three drachms, as near as he can judge. He was told that he had swallowed poison, and immediately endeavored to produce vomiting by putting his finger down his throat, but without avail. In the course of two minutes he became senseless. An emetic of sulphate of zinc was administered, and he was brought to the Massachusetts General Hospital, where he arrived about thirty-five minutes after first taking the poison. The emetic operated partially just before entrance. It should be mentioned that he had taken dinner two hours before swallowing the poison.

On examining the patient he was found to be perfectly insensible. Respiration slow and rather labored. Pupils dilated and fixed. Eyes open and protruding. Conjunctivæ slightly injected. Face and neck congested and livid, the veins being very prominent. Skin on head hot. Temperature of extremities normal. Pulse full, bounding, regular and rapid. Lies immovable and relaxed on the table.

The introduction of the stomach pump was embarrassed considerably by a spasmodic closure of the jaws, which were with some difficulty pried open. A solution of salt and water was first thrown in, as the patient was supposed to have taken nitrate of silver. This was allowed to remain there for a short time and withdrawn. The stomach was then thoroughly washed out by repeated injections of warm water. In the meantime the true nature of the poison was discovered, and accordingly about eight ounces of a solution of ammonia and water (seven drops to one ounce) was thrown into the stomach and allowed to remain, while the vapor of ammonia was applied freely to the nostrils. During this operation the patient had a paroxysm characterized by convulsive movements of the arms and legs, followed by rigidity. Some tendency to opisthotonos. Pupils greatly contracted and fixed. Pulse very feeble. Whole paroxysm lasted about one minute. Cold applications were now made to the head, and patient was left quiet, with orders to apply ammonia occasionally to nostrils.

From this time he began slowly to revive. After a time the face assumed a natural appearance, pupils resumed their normal size, and pulse began to fall. By evening he had almost completely recovered from the effects of the poison. Complained still of a feeling of lightness about head and some headache. Throat felt a little sore. No pain

in bowels or epigastrium. The next morning ate a light breakfast, after having slept soundly during night. Felt as well as ever he did, and, being desirous to go home, was discharged. W.

NITROUS OXIDE AS AN ANÆSTHETIC AND THERAPEUTIC.

[Communicated for the Boston Medical and Surgical Journal.]

IN the number of the JOURNAL of September 7th, 1865, we stated some facts in reference to the safety of this agent for anæsthesia. Farther investigations have fully corroborated the statements there made. As a safe and reliable anæsthetic when properly prepared and administered, we believe nitrous oxide to compare favorably with any yet devised; while as a therapeutic, its value, in a certain class of diseases, cannot be questioned by those who have seen it fully and fairly tested.

The fact that a chemical compound has been long known and familiarly dealt with in popular lectures by the learned and the ignorant, is no sure proof that its nature and proper applications are understood. Phosphorus was, for more than 150 years, a familiar element, and yet how little was known of its wonderful nature and applications until the production of immoxious, amorphous phosphorus by Schrötter in 1848.

About sixty-five years ago, Davy performed a few rude and unsatisfactory experiments with nitrous oxide. These have served as the basis of description by a legion of compilers of *Chemistries* since; and from these the notions of this gas have been chiefly derived; while scores of lecturing mountebanks, supplied from such sources, have essayed to enlighten the public upon the nature and relations of this interesting compound to the human system.

A few years since, Dr. Wells, of Hartford, gave a practical demonstration of its qualities as an anæsthetic in dental surgery. Very soon its adoption by the profession became general. Ignorance vied with avarice in constructing apparatuses for making and inhaling the gas.

Few appear to understand the necessity of purity of material and caution in heating this and washing the product thoroughly. Few appear to be acquainted with the chemical fact that heat effects allotropic changes in the nitrous oxide similar in kind, though less in degree, to those effected in phosphorus, sulphur, and certain organic compounds. This gas, generated at a heat fluctuating between 500° and 600°, even when thoroughly washed, is quite different in its physiological effects from the gas generated at a nearly uniform heat between 400° and 410°. The tendency of the former, especially when taken into the lungs soon after making, is to affect more the brain and produce disturbed anæsthesia. Besides, it possesses more taste, and its action upon sensitive lungs is more perceptible. Hence the

importance of maintaining a low and uniform heat while preparing this gas. Again, the washing and cooling should be far more than is ordinarily given it. A single bubbling in mass, or two or three such, whether in a large or small body of water, does not wash it. The gas, for thorough washing, should be *strained* through at least four or five carefully perforated glass vessels holding from one half to two gallons each, so that every portion may come in contact with the washing fluid. With such precautions, a very different gas for medicinal and anæsthetic uses is made. Furthermore, this, for preservation, should be confined in properly constructed metallic vessels over water, where it will remain with little change from two weeks to two months, and may be inhaled at will.

Nitrous oxide so prepared, and inhaled in its purity by means of a proper valve inhaler, we know by personal experience to be a harmless inhalant, as we have taken it thus, to entire insensibility, nearly 150 times within the past year with only beneficial results, while we have tested it upon numerous persons with like results.

No patient entrusts his person to one whose word or skill he in the least questions. So has it been in the treatment by nitrous oxide. All dental surgeons use only pure material, the best apparatus, have a ripe experience, and of course give their patients a chemically pure article of nitrous oxide. Injury or failure is of course supposed to be due to the principle, not to the application. To illustrate:—When the gas furor prevailed in the fall of 1863, and cheap nitrate of ammonia, tin gas holders, molasses casks and small inhaling bags were in demand, a dentist of respectable attainments—suddenly metamorphosed into a chemist—commenced making and administering the “laughing gas.” With full confidence in his professional skill, a lady of delicate physique applied to have some teeth extracted under the influence of the gas. While she waited, the rude materials were arranged, a furious heat applied, and soon a small bag of it was prepared. She inhaled this corrupt compound until anæsthesia was produced, and had the extraction performed. A sore mouth, a cough, and serious injury to her lungs was the result. What intelligent chemist would question injury from such barbarous treatment? and yet the patient did not suspect the operator, but nitrous oxide. Such was by no means an isolated case, nor are they yet wholly wanting.

We have long protested against such tampering with health, when safety is the easier and more economical course in the use of this valuable agent. Made from an impure salt at a random heat, half washed, and given from a small rubber bag contaminated with accumulated mucus discharged from scores of diseased lungs and carious teeth—so made and administered, is it any wonder that the half asphyxiated victim of headache and vertigo dislikes the gas? One pretentious lecturer assured us that he had used in an exhibition small bags inflated with air, where the materials for making the ni-

trous oxide failed him—the delirium was satisfactory. Another assured us that with a beer bottle for holding the nitrate of ammonia, and a single stone preserve jar for washing the gas, the results with the “laughing gas” “were very satisfactory.”

A gentleman recently stated to us a case told him by the perpetrator himself, a dentist, where being called upon to give nitrous oxide and having none, he withdrew to his laboratory, inflated a rubber bag *from his own lungs*, administered it and extracted a tooth without a suspicion of the ignorant patient, who only complained of a subsequent headache!

For inhalation, nitrous oxide should be made from the purest nitrate of ammonia, thoroughly washed by straining through several separate washers, confined over water, and inhaled in its purity through a valved inhaler. So made and inhaled, we question if an instance can be found where serious results have followed its use.

As an oxidizer and purifier of the blood, the claims for nitrous oxide must be allowed. When medicated and then judiciously inhaled, its applications become still more important; since owing to its rapid absorption by the blood, remedies are made to permeate the system much sooner and more effectively than when applied through the medium of the stomach and lacteals.

That nitrous oxide is destined to become an important anæsthetic and healing agent, may be inferred from the success which has already attended it. The fact that some mercenary schemers and quasi M.D.s have seized upon this from mere motives of gain, should not deter intelligent members of the medical profession from giving it a full and honest trial. As an anæsthetic, nitrous oxide is rapidly gaining confidence with the highest order of dental surgeons. Should intelligent physicians fairly test its virtues we believe they would not be long in recommending its adoption, when it would soon pass from medical charlatans to a wider and more skilful arena of practice.

A. W. SPRAGUE.

Boston, April 20th, 1866.

SUMMER MEDICAL INSTRUCTION IN PHILADELPHIA.

To the Editors of the Boston Medical and Surgical Journal.

In my last letter I promised to give you a short account of our summer school in this city.

Many years ago, at the Jefferson Medical College, a course of summer instruction was established and commenced. It was conducted by gentlemen of ability, but, I believe, by those not otherwise connected with the college. It was soon given up, however; but the large increase of the students, and the manifest increase of interest of many of the students, led the faculty to recommend a summer course at this time. Accordingly the present session commenced April 2d, and with so much apparent interest on the part of the stu-

dents as to warrant the scheme one of perfect success. Indeed, it was an *institution* much needed, and were it generally in so effective and zealous operation as has been, and *still is*, that of the Harvard School, and as is *now* at this (Jefferson) school, young men would be sent out into the world far better qualified to perform the sacred trust imposed upon them. The system established here differs somewhat from that of the school in your city. The instruction is almost entirely given in clinical and didactic lectures. The clinical teaching is given at the college, as also at the "Wills Ophthalmic Hospital," and the "Philadelphia Hospital." These hospitals are most extensive, and afford ample field for the most zealous and persevering student. The course is entirely practical in character, embracing important specialties in medicine and surgery, together with extensive clinical illustrations.

The Lectureships are constituted as follows:—*Clinical Surgery*, Profs. Gross and Pancoast; *Clinical Obstetrics*, Prof. Wallace; *Pathology*, Prof. Dickson; *Hygiene and Meteorology*, Prof. Rand; *Materia Medica and Therapeutics*, Prof. Biddle; *Clinical Medicine*, Dr. Da Costa; *Visceral and Surgical Anatomy*, Dr. W. H. Pancoast; *Minor and Operative Surgery*, Dr. S. W. Gross; *Physiology*, Dr. J. Aitken Meigs; *Ophthalmic and Aural Surgery*, Dr. R. J. Levis; *Veneral Diseases*, Dr. F. F. Maury.

The lecturers are, as you will observe, men skilled in their profession, and eminently fitted for the high positions they are called upon to fill. Some of them are "old in the harness," and well known to your many readers. Professors Gross, Pancoast, Wallace, Dickson, Rand and Biddle are lecturers of high stamp, and fill their respective chairs during the winter session. Dr. Da Costa, though lecturing at the college for the first time, is well known as a practitioner and an author. His authority is acknowledged upon diseases of the chest, especially. Dr. W. H. Pancoast, son of Professor P., is the demonstrator of anatomy at this college, and promises to be equal to his sire. Dr. S. W. Gross, son of Prof. Gross, is well known, at least in military circles, having been brigade surgeon and Medical Director of the Department of the South during the war. Drs. Meigs and Levis are men of excellent standing in their profession. Dr. Maury fills his chair with much credit. He is a young man, but rapidly rising, and promises to reach a high position in our profession. Thus the school is organized, and in its success exceeds the expectation of its founders. Such a school deserves to succeed. Sad for our profession, young men are sent out into the world to follow our calling poorly fitted for such duty. Let other schools throughout the country follow the old example of Harvard, and the new one of Jefferson, and men will reflect honor on their alma mater. The clinics afford some exceedingly interesting cases, and the patients treated present much matter for study and remembrance.

Philadelphia, Pa., May 3d, 1866.

E. R. HUTCHINS.

PROCESS OF DISINFECTION.

A MEMORANDUM on disinfection has been issued by the Privy Council (Great Britain). In view of the approaching epidemics, we give its main points, after the *Chemical News and Druggists' Circular* :

"1. For artificial disinfection, the agents most useful are—chloride of lime, quicklime, and Condyl's manganic compounds. Metallic salts—perchloride of iron, sulphate of iron, and chloride of zinc are applicable. In certain cases chlorine gas or sulphurous acid gas may be used; and in other cases powdered charcoal or fresh earth.

"2. If perchloride of iron or chloride of zinc be used, the common concentrated solution may be diluted with eight or ten times its bulk of water. Sulphate of iron or chloride of iron may be used in the proportion of a pound to a gallon of water, taking care that the water completely dissolves the sulphate of iron, or has the chloride of lime thoroughly mixed with it. Condyl's stronger fluid (red) may be diluted with fifty times its bulk of water; his weaker fluid (green) with thirty times its bulk of water. When the matters requiring to be disinfected have an offensive smell, the disinfectant should be used till this smell has entirely ceased.

"3. In the ordinary emptying of privies or cesspools, use may be made of perchloride of iron or chloride of zinc, or of sulphate of iron. But where disease is present, it is best to use chloride of lime or Condyl's fluid. Where it is desirable to disinfect, before throwing away the evacuations from the bowels of persons suffering from certain diseases, the disinfectant should be put into the night-stool or bed-pan when about to be used by the patient.

"4. Heaps of manure or of other filth, if it be impossible or inexpedient to remove them, should be covered to the depth of two or three inches with a layer of freshly burnt vegetable charcoal in powder. Freshly burnt lime may be used in the same way, but is less effective than charcoal. If neither charcoal nor lime be at hand, the filth should be covered with a layer of some inches thick of clean dry earth.

"5. Earth near dwellings, if it has become offensive or foul by the soakage of decaying animal or vegetable matter, should be treated on the same plan.

"6. Drains and ditches are best treated with chloride of lime, or Condyl's fluid, or with perchloride of iron. A pound of good chloride of lime will generally well suffice to disinfect 1000 gallons of running sewerage; but of course, the quantity of disinfectant required will depend upon the amount of filth in the fluid to be disinfected.

"7. Linen and washing apparel requiring to be disinfected should without delay be set to soak in water containing per gallon about an ounce either of chloride of lime or Condyl's red fluid. The latter, as not being corrosive, is preferable. Or the articles in question may

be plunged at once into boiling water, and afterward, when at wash, be actually boiled in the washing water.

"8. Woolens, bedding, or clothing which cannot be washed, may be disinfected by exposure for two or more hours in chambers constructed for the purpose to a temperature of 210 to 250 degrees Fahrenheit.

"9. For the disinfection of interiors of houses, the ceilings and walls should be washed with quicklime water. The wood-work should be well cleansed with soap and water, and subsequently washed with a solution of chloride of lime, about two ounces to the gallon.

"10. A room, no longer occupied, may be disinfected by sulphurous acid gas or chlorine gas—the first by burning in the room an ounce or two of flowers of sulphur in a pipkin; the second by setting in the room a dish containing a quarter of a pound of finely-powdered black oxide of manganese, over which is poured half a pint of muriatic acid, previously mixed with a quarter of a pint of water. In either case, the doors, chimney, and windows of the room must be kept carefully closed during the process, which lasts for several hours."—*Journal of Materia Medica*.

Bibliographical Notices.

Medical Electricity, embracing Electro-Physiology and Electricity as a Therapeutic. By ALFRED C. GARRATT, M.D. Third Edition. Philadelphia: J. B. Lippincott & Co. 1866.

THIS large volume is the third edition of a work published in 1860, under the title of "Medical Uses of Electricity." Its author informs us in the Preface (page 14) that:—

"Judging from the rapid and extensive sale of the first and second editions, and from the many kindly communications the author has received from learned men in Europe, but more particularly from medical gentlemen in all parts of our own country who are untainted with quackery, some of them being connected with the largest and best medical schools, as well as those held high in public esteem for sagacity and skill, and are in extensive practice—it is conceded to have accomplished a very convincing work. For these reasons, also, some hundred pages of that portion of the book are thrown out to be replaced by twice as many pages prepared from actual experience in practice."

One of the faults of the book is this very size. The author gives us 1085 pages, and on the 1085th page is still burdened by untold matter. A great part of the work is a compilation from others, as such a work must necessarily be; but it is diffuse without being clear.

On page 9 the author says:—"A systematic work on the medical and surgical uses of electricity, containing clear and practical directions as to *where*, *when* and '*how*' to employ electricity as a remedy,

has long been greatly needed." But among the first requirements for such an undertaking is a judicious selection of facts, omitting such as are of little value or useless, while presenting the others with due regard to their importance, and putting them all in a concise and clear form. This seems to have been very much neglected in the work before us. The subject is spun out without being made more intelligible, till in some parts it becomes actually tiresome, and in many instances is put in language which it requires an effort to understand. For instance, we meet frequently with phrases like these :—(p. 7) "*Vitality* is more than electricity." "Life is electro-chemistry *vitalized*." On page 43, after a description of the ozonoscope, follow some remarks on ague, of which this is one. "The whole phenomena of effect on man are a *reduction of nerve force*, a deranged and damaged vitality." Does this mean anything but that the man is debilitated? To the question (p. 110) what are the first radical effects of galvanic currents upon the living organism, the author says that if it were put to him he would say :—"In part it is known, but in part we do not know. The everywhere present *vitality*, unknown and yet seen, in all parts of living bodies, is the *mainspring* of life; but as no one knows what that is, *who will attempt to explain it?*" On page 111 we find that the human body "yields a kind of constant voltaic electricity modified by vitality." Again, on page 117—certain investigations show "that in whatever process or function of the human body the blood is most essential, these, nothing less than true voltaic or animal electric actions and *life force*, must also have an influence." On page 113 we find, "A skull that is manifestly incompetent in size and proportion to contain the *usual* entire cerebral electro-nerve battery indicates that the individual is deficient in mental power, *unless the contained brain is fine and high toned*." This we suppose means that a man with an unusually small brain is not necessarily stupid, though he probably is. We are told in the chapter on Atmospheric Electricity (p. 41) that "meteoric epidemics are caused by undiscovered insalubrious qualities of the general atmosphere." On page 432, we find directions for electrifying the base of the brain, the medulla oblongata and great nervous centres generally. An *up-running* current stimulates them, a *down-running* current has "a calming and downtoning effect." But on page 244 we have been told what is well known, that electrization of the spinal cord produces tetanic convulsions. It is more than probable that in placing one electrode at the neck, the other at the coccyx, as is proposed for electrifying the great nervous centres generally, the electrical current does not reach them at all.

Besides the many obscure passages, such as the above, there are some which we do not understand in the least; such, for instance, as the author's remarks on the "*Hallerian irritability*" of muscle (p. 128); where, moreover, we are startled at the announcement that animal electricity is not governed by the laws of electricity as found in inanimate nature, but by the still more subtle influence of vitality.

There is a great deal of this indefinite kind of writing in the book, so much so that were it not for the copious selections from other authors we might occasionally ask whether it were intended to be a sci-

* The Italics are in the original.

entific work, or whether it were not written for the public rather than for the profession. Again, the definitions, diagnoses and descriptions of diseases which take up so much room in the chapter on Electro-Therapeutics, can hardly be of any value to a practitioner, nor even to a student, who must be supposed to have acquired a certain amount of medical knowledge before he undertakes the perusal of a special work on medical electricity.

Notwithstanding, however, the very indifferent manner in which the scientific part of the work is presented, the author must be a good manipulator with the electrodes, an excellent practical electrician. His work contains a great many valuable facts, and for these facts alone we are glad to have it. Practical suggestions, reports of cases from other authors, and from his own practice, some of them very interesting and instructive. On this account we welcome the book; not as a text book for students, not as a scientific treatise, but as a book of reference. We therefore wish the author had given us more extensive foot notes, informing us of the exact places where his numerous extracts might be found in their originals.

If Dr. Garratt's book reaches a fourth edition, we hope he will condense it to 250 or 300 pages; that he will give us the practical results of his own experience and of that of other authors, leaving aside all more abstract matters.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 17, 1866.

THE CONSULTING PHYSICIANS OF BOSTON ON ASIATIC CHOLERA.

THE Consulting Physicians of Boston have addressed a communication to the City Government on the important subject of cholera, the main object of which would seem to be to express their dissent from the views recently expressed by the City Physician on the question of its communicability, their regret that his opinion should have been allowed to influence the action of the Board of Health without previous consultation with them, and their remonstrance against any quarantine regulations adopted with the hope of excluding it from our borders, which regulations they are pleased to denominate "not only as useless, but even cruel, oppressive and unjust." This seems to be the principal motive for the communication in question, for the remainder of it is principally made up of suggestions as to the best hygienic methods of preparation for the anticipated invasion of this disease, which are eminently wise and judicious, but containing nothing specially novel in them calling for communication to the City Government.

Our readers will hardly be surprised to learn that we hold very different opinions from those so positively presented in the document before us. The deduction from them, if allowed to influence government action, is so important, and in our view so dangerous, that we feel compelled to utter our remonstrance against them as a guide. While professing not to enter into a discussion on the subject of the conta-

giousness of cholera, the Consulting Physicians nevertheless present a series of alleged facts and positive statements collected from numerous sources, relating to the past history of this disease, some of which certainly it would be hard to substantiate; such as the assumed great exemption from the disease of the attendants on the sick in proportion to their numbers, the opinion that it cannot be barred out by quarantines or cordons, and the like. At the conclusion of this mass of negative testimony, they declare that they are led to as full an assurance as negative testimony can furnish, that cholera is not contagious.

Now we are not unwise enough to undertake to explain all the mysteries nor solve all the problems offered by these gentlemen as proof of the non-contagiousness of this disease: this would be simply impossible, if for no other reason, because of the difficulty of getting at the real facts. Our business as journalists is to present, as fairly as we can, the history of the epidemic now on its march, and the views of those members of the profession who have personally had the most to do with it. We say the difficulty of getting at the real facts of the case. A single instance will serve as an illustration. The appearance of the cholera on shipboard in mid-ocean, in November, 1848, has been cited, and with great emphasis, as a very conclusive proof that this disease is produced by atmospheric causes quite independently of any principle of contagion. Although the believers of the portability of the germs of this disease have felt that it was a fair explanation of this occurrence to say that the limit of its latent period was not exactly known, and that there was nothing at all improbable in the supposition that in this instance the disease had been brought from Europe but had remained latent until the time it broke out, yet this has never seemed to have any weight with anti-contagionists, and has been regarded as a merely theoretical explanation. Happily, at this late hour, we have learned the exact facts in the case, and they support in the most positive manner the opinions of the contagionists. They were furnished to the *Quebec Morning Chronicle* of February 19th, 1866, by Dr. Marsden, of that city, and, as copied in the *Medical and Surgical Reporter*, they are as follows:—

“Of the vessel that sailed on the 9th of November, 1848, from Havre for New York, the facts were remarkable and are these: When the vessel referred to (the ship *New York*) reached the Northern Atlantic coast, near Cape Sable, the weather became cold and boisterous. Among the passengers were a number of German emigrants, who came from a place where cholera prevailed, and had been among it. One of them had a chest of clothing which belonged to a person who had died of cholera. The chest was opened, the clothing taken out and used, and on Tuesday, the 22d November, a child was taken ill at 2, P.M., and died at 8, P.M., and a second child died with similar symptoms. On the following Wednesday and Thursday, four men were reported sick, two of whom died suddenly with symptoms of cholera. A third died from what was considered dysentery. Twelve were landed at the quarantine station at Staten Island, of whom three died, &c.’ He also gives another instance of contagiousness:—‘A sailor died in some port in Europe, of Asiatic cholera, in 1832. A chest containing his *personal effects*, clothing, &c., was sent home to

his family, who lived at a small straggling village on the Atlantic coast in the state of Maine. It reached them about Christmas, 1832, and was opened on arrival. The inmates of the house were all immediately and suddenly seized with a disease resembling Asiatic cholera in all its malignancy, and died! There had been no cholera in the State. Had this occurred in summer, instead of the depth of winter, and in a more thickly peopled locality, there would doubtless have been a repetition of the recent Gaudaloupe tragedy, by which a whole country became infected from the clothing of persons who had died of Asiatic cholera, which had been sent ashore to be washed. In this case, had the infamous conduct of the pilot who sent the things secretly on shore not been discovered, the case would have been handed down as a wonderful non-contagious fact of Asiatic cholera breaking out without infection or importation.' The authenticity of the last quoted case is also attested by the venerable Prof. R. D. Mussey, now residing in this city, who, as his son informs me, was at the time fully conversant with the facts."

The above quotations are from a communication by Dr. Read, the City Physician of Boston, maintaining the correctness of his recently announced belief in the contagiousness of cholera.

In the discussion of this question one very important fact has been too often overlooked by those who insist on its non-contagiousness, namely, that most contagious diseases are *both contagious and epidemic*. Take, for instance, the case of such diseases as smallpox, measles and scarlatina. There is hardly a day in which cases of all these diseases may not be found in any one of our large cities. And yet at certain periods they spread through the community with a power which excites very general alarm; while at others, the fire, as it were, only smoulders in certain localities, the scattered embers barely glowing, and yet ready under favorable circumstances to kindle a wide spreading conflagration. No rational physician doubts that these diseases are as essentially *contagious* in the seasons of their quiescence as when they are distributed broadcast throughout the community, counting their victims by hundreds.

As it is very generally believed that the weight of professional authority has heretofore been mainly on the side of the anti-contagionists, perhaps with some show of reason, it is worth while to turn to the published opinions of men whom all the world acknowledges as leaders in the profession. Such a one is Dr. Watson, of London, the recognized head of the medical profession in England. Here is what he said, so long ago as 1844, as we find it published in his *Lectures on the Practice of Physic*, a standard text book down to the present time.

"Many persons believe that the complaint spread by contagion; more, however, that it was not contagious at all, but arose from some deleterious cause with which the general atmosphere of the place was pregnant. Now I cannot reconcile the phenomena of the appearance and extension of the malady with either of these hypotheses, *exclusively*. It must, I think, be granted, that the complaint, in every instance, was excited by the application of some noxious material to the body, some positive poison. It is certain, also, whichever hypothesis may be chosen, that many more individuals were exposed to the agency of this poison than were injuriously affected by it. This

exemption from the disease no more invalidates the doctrine of contagion, than it invalidates the doctrine of some diffused atmospheric influence; nay, it is more explicable upon the former than upon the latter supposition; for while many may avoid a specific contagion, all are immersed in, and all breathe, the common atmosphere. But the exemption shows *this*: that the exciting cause, to be effective, required a fit recipient; that the susceptibility of being hurt by the poison in its ordinary dose and intensity varied much in different persons; and in the majority was very faint, or wanting. It is clear that the poison travelled. *It is equally clear to my mind, that it was portable; and therefore communicable from person to persons. I even believe that it was capable of being conveyed, and was actually conveyed, from one spot to another, by persons who were themselves proof against its effects. The innumerable instances of coincidence, in point of time, between the first outbreak of the disorder in a particular place, and the arrival at that place of some person or persons from an infected locality, prove that the poison could be thus carried.* Of this direct importation of the disorder into new and distant places, by infected individuals, and of its subsequent extension from those individuals to others who had intercourse with them, you may see a vast number of examples, collected by Dr. James Simpson, in the 49th volume of the *Edinburgh Medical and Surgical Journal*. The evidence there adduced of the portability of the poison is abundant, and to my mind, irresistible."

We think we have said enough at the present time in support of our opinion that there is sufficient evidence of the portability and communicability of cholera to make it the part of wisdom for all governments to use the most stringent measures of quarantine in the hope of keeping it from getting a foothold on their shores. We are most favorably situated in America in this respect. Already has the disease arrived on our coast three times within the past year, and by such regulations it has been held at a distance until it has died out. To say that such regulations, with a knowledge of these circumstances, are useless, unwise and cruel, is an abuse of language which we do not think it necessary to make any comment upon. We think our community is to be congratulated that the advice of the City Physician has been adopted by the Board of Health as a guide to their action.

Portability of Cholera.—The newspapers of to-day contain a very significant fact in its bearing on the question of the portability of cholera. The steamer *Helvetia*, it seems, bound from Liverpool to New York, was compelled to put back to the former port, where she arrived on the 4th inst., by the appearance of cholera on board before she arrived at Queenstown. The disease first appeared among the German emigrants on board, and the National Line has in consequence decided to stop German emigration through their vessels. The British Government has ordered a full examination of German emigrants before their admission to England, the cholera having appeared among this class at Liverpool.

Dr. Snow, of Providence, maintains that there is a cholera-generating belt traversing the ocean at this time towards the west, and that the ships which recently arrived at Halifax and New York with this

disease on board were infected by passing through this belt. These ships contained German emigrants from the Rhine, where the disease by recent accounts was raging fearfully. To say nothing of the complete immunity of steamers and other vessels crossing and re-crossing the ocean at the same time, which must have passed through such a belt if it had existed, it would seem that we need not apprehend its approach to our shores; for if the theory of its existence is correct, the outbreak on the *Helvetia* would seem to show that it must have taken a turn backwards towards its starting point.

Massachusetts Medical Society.—The announcement in our advertising columns of the programme for the approaching meeting of our State Society shows that it promises to be one of unusual interest. We call attention to it thus early, in the hope that there may be a large gathering of the Fellows to mark what promises to be a new era in its history.

Messrs. Editors,—A few days since I was called to see Mr. H. H. B., aged 25 years, of more than average muscular development and vigor. He gave me the following account:—While crossing Boston Common on his way to the Providence depot he tarried a moment to witness a game of base ball. Although four rods from the players he was hit in the face with a ball with great force. I found there was bleeding from the gums, dribbling of saliva and crepitus between the lateral incisor and canine tooth of left side of lower jaw. The displacement was inconsiderable, and the irregularity in the line of the teeth slight. Yet the mobility was quite distinct, proving unequivocally the fracture. The parts were secured in apposition by connecting the sound teeth on each side of the fracture with platinum wire, and by the application of a piece of pasteboard previously softened in hot water, and accurately fitted to the jaw, and retained in position by the four-tailed bandage. The pasteboard I intended as a temporary appliance, meaning to substitute gutta serena; but the former answered so well that I did not remove it.

The patient in his extremity called upon a physician near, who readily recognized the nature of the accident, but who generously waived his right to the patient, and advised him to apply to some physician this side of the Charles, when he learned he intended to stop in this city.

So severe an accident, and produced in the manner it was, would lead us to infer that these balls must be composed of different material from yarn or thread, and that serious injury may not unfrequently result from their too common or careless use. This is especially true if the statement I have heard is correct, that the nucleus or central part of these balls is composed of lead.

A. B. BANCROFT.

Charlestown, May 5th, 1866.

Narceine.—M. Liné, formerly Interne des Hôpitaux, after a series of experiments with narceine in the wards of M. Delpech, gives the following *résumé* of his observations:—

1st. Of all the alkaloids contained in opium narceine possesses hyp-

notic power to the greatest extent. In the great majority of cases neither morphine or codeine produce so long or so profound a sleep.

2d. Narceine causes only in a very feeble degree the physiological phenomena consequent upon the sleep produced by morphine and the salts of that base. Besides, the perspiration is much less abundant than after the use of opiates. Vomiting is rare; nausea and loss of appetite more common. Narceine in its action upon the intestine differs sensibly from morphine; instead of causing obstinate constipation, its effect, in small doses, is that of a gentle aperient. In larger doses it causes a diarrhœa.

3d. Narceine relieves pain, like all opiates.

Among the different effects produced upon the secreting organs, that upon the kidneys is nearly constant. Anuria, to a greater or less extent, is noticed particularly after rather large doses. Perhaps this peculiar action of narceine might be turned to account in the treatment of incontinence of urine in children.—*Gazette des Hôpitaux*, April 3d, 1866.

IN a communication to the Imperial Society of Physicians on the use of cold applications, Dr. Winternitz, of Vienna, claims that all the good effects, without the subsequent injurious reaction, can be obtained by employing them centrally instead of locally and peripherally. That felons and hæmorrhages of the fingers, for instance, can be better controlled by the application of cold to the upper arm than when used locally.

DR. JAMES P. WHITE, in an interesting letter to the *Buffalo Medical and Surgical Journal*, mentions the following singular facts:

"In the vault or 'cavern' attached to St. Michael's church (in Bordeaux) you are shown the preserved bodies of 70 to 100 individuals of all ages and both sexes. Their history, as furnished by the guide books and *valets de place*, is as follows: There is a belfry attached to the church which was built between 1472 and 1480, the steeple of which formerly rose to the height of 300 feet. The ground around this belfry was used as a church-yard or cemetery. In the early part of the French revolution the church-yard was closed, and the bodies dug up, and the belfry and steeple nearly razed to the ground. The bodies above referred to, many of which had been buried three or four hundred years, were found to be *perfectly preserved*. They look like mummies or dried fish, or half tanned leather. The age, sex, and even the features to a considerable extent can be made out. Here stands a General, who is known to have fallen in a duel, with the wound in the chest which caused his death, still gaping and patulous. There an old woman, whose whole breast, and the surrounding tissues, were destroyed, probably by cancer, the remainder of the body being entire. Upon the other side are those who seemed to have died in full health, plump and round; there are others emaciated to skeletons, as by consumption. Among the number are two or three, who, from the positions which they have assumed, the twisting of the neck, tearing of the hands and the contortions of the countenance manifest, leave little doubt on the mind of the beholder that the statement of the guide is correct, when he assures you that they were bu-

ried alive, as these positions could only have resulted from their efforts to release themselves from a confinement most horrible to contemplate.

"It may also be added that the drapery, the linen, the lace even with which the linen was ornamented; the hair, the beard, and its color are in many instances perfectly preserved. To my mind these bodies, thus completely *preserved* (not converted into adipocere), the liquid parts only having escaped by evaporation, present a curious subject of inquiry to the philosophic mind, as to the cause. What were the antiseptic qualities peculiar to this soil which enabled it thus completely to arrest the process of decomposition? So far as I am aware the case is without a parallel. From the guide and the gentleman to whom I had letters I could not learn that the subject had ever been brought to the attention of the scientific investigator, and no suggestions as to the cause of this wonderful phenomenon had been made. Upon my return to Paris I propose to pursue the subject, when I shall, perhaps, find that it has already received such attention as in my opinion it demands, and if so your readers shall learn the benefit of any intelligence which I may be able to obtain upon this curious and interesting question. Meanwhile, were I to hazard a guess, it would be that the soil in which those bodies were interred contained sulphate of iron, which by permeating the animal tissues completely arrested the ordinary process of decomposition, and must preserve them for an indefinite length of time. I am led to this suggestion simply from the color of the earth from which they were taken. But speculation is useless, and I dismiss the subject for the present."

General Résumé of the Sick and Wounded of the Confederate States Army under Treatment during the Years 1861 and 1862.—From all the reports filed in the Surgeon-General's office for the years 1861 and 1862, exclusive of the few scattering ones which reached us from the Trans-Mississippi department, we are enabled to sum up the sickness and mortality occurring in the southern armies during the late war as follows:

Continued Fevers.—Field reports, 36,746 cases and 5,205 deaths. Hospital reports, 40,565 cases and 7,020 deaths.

Paroxysmal Fevers.—Field reports, 115,415 cases and 848 deaths. Hospital reports, 49,311 cases and 485 deaths.

Eruptive Fevers.—Field, 44,438 cases and 1,036 deaths. Hospitals, 32,755 cases and 1,238 deaths.

Diarrhœa and Dysentery.—Field, 226,828 cases and 1,696 deaths. Hospitals, 86,506 cases and 1,658 deaths.

Pulmonary Affections.—Field, 42,204 cases, 3,534 deaths, and 4,538 discharges from service. Hospitals, 36,988 cases, 4,538 deaths, and 1,135 discharges.

Rheumatism.—Field, 29,334 cases 1,142 discharges. Hospitals, 30,438 cases and 700 discharges.

Gun-Shot Wounds.—Field, 29,569 cases, 1,623 deaths, and 493 discharges. Hospitals, 48,724 cases, 2,618 deaths, and 472 discharges. Killed in battle, 8,087.

All other Diseases.—Field, 324,321 cases and 2,278 deaths. Hospitals, 123,402 cases and 1,802 deaths.

Whole number of cases exhibited in the field reports during 1861 and 1862 was 848,555; of which 16,220 died and 10,455 were discharged from service. There were admitted in hospitals for the same period 447,689 cases; of which 19,359 died and 6,485 were discharged. Total deaths in two years, 35,579.

COMPOUND FRACTURE OF THE THIGH TREATED WITHOUT AMPUTATION.

	Recoveries.	Deaths.	Days.	Inches.
Average period of recovery	116	105	104	
Greatest period of recovery	—	—	255	
Least period of recovery	—	—	41	
Average period of death	—	—	52	
Greatest period of death	—	—	185	
Least period of death	—	—	1	
Average amount of shortening	—	—	—	1.9
Greatest amount of shortening	—	—	—	5.0
Least amount of shortening	—	—	—	0.5

—*Richmond Medical Journal*, from *Confederate States Medical Journal*.

Rectified Oil of Amber as a Remedy for Hemorrhoids.—The editor of the *American Journal of Pharmacy*, Mr. William Procter, Jr., contributes the following interesting communication to the journal of which he is editor :

“Of the large number of persons who suffer from this annoying complaint, very many never consult a physician, and many others after renewed treatment give up the idea of becoming cured, viewing the affliction as some do old ulcers, as a burden to be borne while life continues. Various external applications are constantly prescribed, as an ointment of acetate of lead, tannin or nutgall, and opium, which is often successful in affording relief. Numerous secret nostrums have, from time to time, attracted attention, indicating the prevalence of the disease. Several years ago my curiosity was excited by the repeated calls for rectified oil of amber by a person who was not in any way connected with medicine, and he was asked the use to which it was applied. He said it was for piles, and that he rarely knew it to fail, the numerous calls that had been made being for friends and acquaintances who were sufferers from the complaint. After that, on several occasions where opportunity offered, it was suggested and tried with success, in many cases of piles where the tumors were external and annoying. The manner of its curative action I am not aware of. The oil is applied as a lotion to the tumors, and around the anus where the swellings exist. It occasions a smarting sensation at first, but after several applications the sensitiveness disappears, and the tumors are dissipated. So far as is known to the writer the influence is entirely local, and does not extend beyond the parts to which it is applied. I am not aware that it has been applied beyond the sphincter ani to the internal tumors, but know of a case wherein both internal and external piles existed, the latter disappearing, and the others continuing to give annoyance. The object of this note is to ask the attention of medical men to the subject, that the actual value

of the oil of amber as a remedy for piles may be satisfactorily tested. It may be that in some cases admixture with lard or cerate would be preferable, and in the form of an emulsion, or associated with glycerin or olive oil, it might be applied in the rectum by injection or by a bougie. These are mere suggestions to the physician.

"It is to be regretted that so little genuine oil of amber is to be obtained, as has been conclusively shown by Mr. Ebert, of Chicago (see page 146 of this volume), who finds that it costs as much per ounce to make the oil as it sells for in commerce per pound. Failures may be attributed to the spurious oil made from turpentine and coal oil, shaken with oil of tar and some oil of amber."

The publisher of the American edition of *Braithwaite's Retrospect of Practical Medicine and Surgery* proposes to add an appendix, containing a summary of the important medical features of American journalism, and thus to render the work more acceptable to its readers generally. It is also intended to furnish in each number a complete list of the medical works published in this country or abroad during the previous six months, with the price affixed, and with a *very brief* indication of their aim and character. Publishers are requested to facilitate this work by sending to the editor the titles of works in press, with the *retail* price annexed.

The medical profession in this country has been heretofore so completely overlooked by the European Editor, that the American edition cannot fail to be greatly improved by the proposed appendix; and we hope his enterprise will meet with the recognition from the profession which it justly deserves.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 12th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	38	46	84
Ave. mortality of corresponding weeks for ten years, 1856—1866	35.7	37.3	73.0
Average corrected to increased population	00	00	79.63
Death of persons above 90	1	1	2

AMERICAN MEDICAL ASSOCIATION.—The continuation of our report of the recent meeting of the American Medical Association has miscarried in the mail, and we are therefore compelled to defer its publication to another occasion.

BOOKS RECEIVED.—*Asiatic Cholera; its Origin and Spread in Asia, Africa and Europe, Introduction into America through Canada; Remote and Proximate Causes, Symptoms and Pathology, and the various Modes of Treatment analyzed.* By R. Nelson, M.D., Health Commissioner during the first two invasions, 1832, 1834; President of the Medical Board for the District of Montreal. New York: William A. Townsend.

DIED.—At Charlestown, May 11th, Dr. Abraham R. Thompson, aged 85 years.—At Harlem, N. Y., May 7th, Dr. James M. Edney, formerly of North Carolina, aged 52 years.

DEATHS IN BOSTON for the week ending Saturday noon, May 12th, 84. Males, 38—Females, 46. Abscess, 1—accident, 1—apoplexy, 1—disease of the bowels, 1—disease of the brain, 5—inflammation of the brain, 1—bronchitis, 6—cancer, 2—cholera morbus, 1—consumption, 13—croup, 2—cystitis, 1—debility, 1—diphtheria, 2—dropsy, 1—dropsy of the brain, 1—drowned, 2—epilepsy, 1—scarlet fever, 1—typhoid fever, 3—gastritis, 1—disease of the heart, 1—hernia, 1—infantile disease, 2—inflammation, 1—congestion of the lungs, 3—inflammation of the lungs, 7—marasmus, 3—old age, 5—peritonitis, 2—puerperal disease, 2—teething, 1—unknown, 6—uræmia, 1.

Under 5 years of age, 21—between 5 and 20 years, 7—between 20 and 40 years, 18—between 40 and 60 years, 21—above 60 years, 17. Born in the United States, 51—Ireland, 26—other places, 7.

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No. 17.

LOCAL ANÆSTHESIA BY THE ARTIFICIAL PRODUCTION OF COLD.

[Read before the Suffolk District Medical Society, April 28th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By CALVIN G. PAGE, M.D.

THE recent renewed interest of the profession in the subject of local anæsthesia by the artificial production of cold, has induced me to think that a brief sketch of the various efforts in times past for producing intense artificial cold would not be uninteresting, in connection with the results of some experiments in which I have been engaged for the purpose of testing the relative merits of various instruments and materials recently devised for that purpose.

The frigorific properties of nitre were undoubtedly known at a remote period by the oriental nations. It was also used in Rome in 1550, for the cooling of various drinks. This method of reducing temperature by the rapid solution of nitre with snow was extended by Boyle, and afterwards more successfully by Fahrenheit; and at the beginning of this century, Walker, of Oxford, and Lowitz, of St. Petersburg, resumed the subject, and produced compound saline powders of intense frigorific power.

The tables of Walker are of great interest, and two or three of his results are worth quoting. For example:—

With sea salt, 1 part	}	the thermometer fell from any temperature to -5°			
and snow, 2 parts					
With sea salt, 5 parts	}	“	“	“	-25°
Nitrate of ammonia, 5 parts					
Snow, 12 parts					

Freezing mixtures were also made by the rapid solution of salts without the use of snow. For example:—

Sulphate of soda, 6 parts	}	reduces temperature from $+50^{\circ}$ to -10°			
Hydrochlorate of ammonia, 4 “					
Nitrate of potassa, 2 “					
Diluted nitrous acid, 4 “					
Phosphate of soda, 9 parts	}	reduces temperature from $+50^{\circ}$ to -21°			
Nitrate of ammonia, 6 “					
Diluted nitrous acid, 4 “					

Sir John Leslie showed in June, 1810, before the Royal Society, his brilliant experiments for producing artificial congelation by means of exhausting the air in a chamber containing a flat pan of sulphuric acid, over which was placed another dish containing water; in a short time the whole mass became frozen. In 1817 he substituted for the acid porphyritic trap rock in powder, and still later parched oat meal, with a box of which a foot in diameter and rather more than an inch deep, he froze one and a quarter pounds of water.

The following table of extreme low temperatures, artificial and natural, measured by the spirit thermometer, is interesting:—

-135°.	The lowest artificial cold yet produced (Faraday).				
-121°.	Carbonic acid, liquefied by pressure, freezes.				
-55°.	Lowest atmospheric temperature observed by Parry.				
-60°.	"	"	"	"	Ross.
-71°.	"	"	"	"	Bach.

The possible use of cold for the production of local anæsthesia was first announced by Dr. James Arnott, of England, in November, 1847. More elaborate accounts of his process appeared in the *Lancet* of July 22d and Sept. 9th, 1848. Previous attempts in this direction—for example, the experiments of Mr. Nunnely on inferior animals and man, published June 24, 1848, and experiments by Prof. Simpson, of Edinburgh, on the local application of anæsthetics—show that earnest thought was turned to this subject very soon after general anæsthesia was found possible by ether and chloroform. Dr. Arnott says, in the *Lancet* of Dec. 1st, 1849, that it is two years since he first used cold for local anæsthesia, and more than a year since he assisted in its use for a surgical operation at the General Military Hospital at Chatham.

In 1850, by direction of M. Velpeau, who had seen some recent experiments by Dr. Arnott (in 1849) in the Paris hospitals, Messrs. Berand and Fouchêt were directed to report upon the employment of frigorific mixtures to produce anæsthesia. The report is given in No. 42 of the *Union Médicale* for that year, and the opinion of M. Velpeau on its use may be found in his work on Cancer of the Breast (translation of Marsden, London, 1856). Arnott's undeveloped ideas on this subject may be found as early as his work on "Indigestion," &c., with an account of applying heat or cold in irritative or inflammatory diseases, London, 1847, 8vo., pp. 107.

The first public use of this method of local anæsthesia in our own city, which has come to my knowledge, was on June 13th, 1852, at the Massachusetts General Hospital, by Dr. J. Mason Warren, who operated on a nævus without pain, having first frozen it with a mixture of ice and salt. It was first used here on tissue in a state of acute inflammation, by Dr. Warren, in the winter of 1852-53, for a case of fascial paronychia caused by a dissecting wound; the superficial incision was painless. Since that time almost every surgeon has practically tried its value.

In the month of March last, Dr. R. M. Hodges, of this city, called the attention of the profession to a new method of producing local anæsthesia by the rapid evaporation of ether, devised by Mr. Richardson, of London, and published in the *Medical Times and Gazette* for February, 1866. Dr. Hodges at that time showed a model of an apparatus made after Mr. Richardson's description, and with *kerosolene* produced a greater degree of cold than that given by ether, with complete local insensibility of the part to which it was applied. On the 9th of April, Prof. H. J. Bigelow showed a new agent (since named rhigolene), by which a much greater degree of cold can be produced than by ether or kerosolene.

At the meeting of this Society a month ago, I showed a model of an instrument, made after the plan of Mr. Richardson, except that the tubes were not concentric, but were placed side by side. I also showed the vaporization of ether by my modified form of Bergsen tubes, originally shown and explained Nov. 26, 1865*, and expressed the opinion that a requisite degree of cold for all practical purposes could be produced by the ordinary Bergsen tubes if made in metal, and that my modification of form for atomizing in the mouth would be found to be perfectly adapted for local anæsthesia at all points where local anæsthesia was desired. I narrated a case at that time where it had been used with ether for the extraction of three teeth. I was uncertain then exactly how great a degree of cold could be produced by my instrument. Since then I have been studying the question of temperature, and have compared and registered the results produced by such instruments as I could obtain. I am indebted to the courtesy of Dr. Langmaid for the use of the original Richardson instrument brought by him from London. My first trial of the instruments, side by side, on a common thermometer, is here given :

		Ether.	Rhigolene.	Time.
April 18, 1866, Central office of Boston Dispensary,	Page's tubes,	-4°	-16°	one mi-
	Richardson's,	-4°	-16°	nute.

It is hardly necessary to give the daily detail of experiments as tabulated, but is sufficient to record that I found that the large bulb thermometers were not so quickly affected in the low temperatures as the small ones, and after April 18th all my results were registered by a standard thermometer. After this date I used an atomizer with smaller tubes and finer cones, which gave, April 27th, by standard thermometer, with rhigolene, -16°; ether, -4°; time, 45". And on April 28th, at the office of Dr. Bigelow, with rhigolene, both his instrument and my own gave -16° in about one minute.† Practically, then, we have at command a temperature more than sufficiently low and always available.

* See Boston Medical and Surgical Journal, Feb. 1, 1866. Extracts from Records of Boston Society for Medical Improvement.

† I have found that lower temperatures are produced by both ether and rhigolene when they have been cooled to 32° Fahrenheit, and that the difference between ether and rhigolene is pretty constant on all thermometers, being about 12° in favor of the rhigolene.

It is well known that the temperature of the ordinary freezing mixture of ice and salt is from 0° to -2° . This temperature has been found sufficient for freezing living tissue and destroying local sensibility, but this mixture requires time for preparation, is sometimes difficult to apply, and is not available in the mouth. Ether (easily reduced to -4°), when vaporized in the mouth, produces irritation and disagreeable disturbance of the mucous membrane. Rhigolene has no such objection; when applied in the mouth it causes no irritation, nor does it produce any of the signs of general anæsthesia, the time taken in applying it being only from five to ten seconds. I have used it successfully in nine cases at the Central Office of the Boston Dispensary on teeth. The gum outside and inside should be slightly frozen, and should the crown of the tooth be found broken, it can be applied directly upon the carious part of the tooth, which may then be extracted without any outcry from the patient. I have also used it in various minor operations at the Dispensary, for Dr. S. L. Sprague, as extracting a fish-hook from the finger, extracting a needle from the hand, opening an abscess on the shoulder, a felon, &c.; and also at my own office for the first time on Sunday, April 15th, for opening a felon, and since then twice for felon and once for abscess, with perfect success.

The result of all my experiments and trials seems to prove that rhigolene is a perfectly successful local anæsthetic, and in the mouth is superior to anything yet used; That ether will do the work on the external surface of the body without difficulty, as it can be brought below the temperature of the ordinary freezing mixture, but requires more time; That the Richardson instrument has no powers not equalled or surpassed by my modification of the Bergsen tubes. It is probable that the ordinary Bergsen tubes, made of smaller tubing and with finer points, will be finally used for local anæsthesia, with such modifications of form as will render them applicable to the mouth and the vagina. The excess of fluid in the tube is best prevented by placing a bit of sponge or wicking in the open end of the fluid-bearing arm of the tube.

Instruments with stop-cocks or cylinders requiring lubrication are not available with rhigolene, which takes up all oily matter in solution and causes leakage—for example, Luer's atomizer. Glass tubes will not answer, glass being a non-conductor.

Dr. Bigelow, in his article on Rhigolene, gives a temperature of -19° as easily produced, but does not give the time necessary to produce it. I doubt if such a low temperature can be produced on a standard thermometer in sixty seconds, the time allowed in most of my experiments, by any instrument yet devised, though it can be if sufficient time is taken. The only objections to rhigolene are that it must be kept very cool and cannot be conveniently carried about in warm weather or in the evening, as it boils at 70° , and is inflammable.

NOTE I.—In addition to the authorities named in the body of the article, gentlemen interested are referred to the following works for more detailed information. These references are to the early efforts to produce artificial cold, and to show its early history as an anæsthetic. It must not be understood that they are intended to be a complete bibliography of the subject. *Philosophical Transactions*, vol. 65, p. 124; vol. 77, p. 282; vol. 78, pp. 125, 277, 395; vol. 85, p. 270. *Enc. Britan.*, art. Heat. *Biog. Sir John Leslie, &c.* Tomlinson's *Useful Arts*, vol. 2, p. 13. Four Pamphlets by Dr. James Arnott, London, 1849, 1851, 1852, 1855. *Bulletin de l'Académie de Médecine*, vol. 15, p. 85, séance du 16 Octobre, 1849. *Union Médicale*, Nov. 23, 1850. *Gazette des Hôpitaux*, Nov. 16, 1854. *Holmes's System of Surgery*, London, 1860, vol. 1, p. 568; vol. 3, p. 92. *Erichsen's System of Surgery*, London, 1861, p. 13. *Chemistries*, article Heat, e. g., *Turner's*, p. 39 et seq. *Simpson's Obstetric Works*, second series, Philadelphia, 1856, p. 667 et seq. *Boston Society for Medical Improvement, Extracts from Records*, vol. 1, p. 344. *Boston Medical and Surgical Journal*, April 12 and April 19, 1866. And the following, quoted in Braithwaite:—*Monthly Journal of Medical Science*, July, 1854, p. 33. *Lancet*, April 15 and May 6, 1854, pp. 415 and 489. *Medical Times and Gazette*, July 1, p. 11; Sept. 2, p. 248; Sept. 30, p. 342; Oct. 7, p. 379, all of 1854. The date of its introduction into Germany I have not been able to obtain; it was probably 1848-9.

NOTE II.—To allay any theoretical apprehension of dangerous reaction, I append the following quotation from Arnott, p. 21, on Neuralgic, Rheumatic and other Painful Affections, &c., London, Churchill, 1851. "Any objection to congelation, on the score of reaction being likely to be caused by it, or other injurious effects, can only originate either from not distinguishing between the lowest temperatures hitherto employed in medicine, and one forty degrees lower still, or from not perceiving the difference that subsists between a regulated and limited congelation and one that is uncontrolled or unlimited. Although it has now been employed thousands of times, both as an anæsthetic and a remedy, I have never observed any such result." My own experience, though limited, accords with this view. C. G. P.

CASE OF MULTIFOCULAR OVARIAN CYST—TAPPING—OVARICTOMY—DEATH THIRTY HOURS AFTER.

[Read before the Norfolk District Medical Society, May 9th, 1866, by Z. B. ADAMS, M.D., of Roxbury.]

Mrs. B., aged 42, mother of two children. Ovarian disease first discovered in March, 1865, by the late Dr. Charles Windship, of Roxbury. Abdomen began to enlarge during the following summer, accompanied by proclivencia uteri and vaginal eversion. Pessaries and uterine supporters were used without relief. The abdomen increased in circumference at about the average rate of an inch a month. In December, she measured 42 inches in girth at the umbilicus, and presented very much the general appearance of a woman at the end of the ninth month of pregnancy. There was then œdema of the lower extremities, some dyspnoea and cough, loss of flesh, pain in the back, dyspeptic symptoms, and deficiency of urine. The catheter showed nothing abnormal about the bladder. The uterine sound discovered no disease in the uterus, which was movable and not closely attached to the tumor. The patient was unable to lie down for more than an hour or two at a time, and had to rise during the night, often more than once, and walk the room for relief from oppression. She had two attacks of sharp pain in the neighborhood of the umbi-

licus, accompanied with general distress, lasting for a few hours each time. Menstruation was somewhat irregular, but did not cease. The tumor was movable, fluctuating more distinctly on the right side than on the left, and most prominent in the middle of the abdomen. The falling of the womb, together with indigestion, loss of appetite, nausea, restlessness, inability to lie or sit with comfort, and cough, rendered life a burden almost too heavy to be borne. Her face had the expression said to be characteristic of ovarian disease.

She was examined by Dr. D. Humphreys Storer, and afterwards by Dr. Henry J. Bigelow, of Boston, and the tumor was decided to be a multilocular ovarian cyst. The presence of a certain amount of ascites was suspected.

Dec. 29th, 1865.—Tapped with a large trocar, three inches below the umbilicus, on the median line, at the lower border of what appeared to be a large cyst. Several small cysts were evacuated, and a little more than a pint of sticky, straw-colored, cystic fluid, streaked with blood, came away. No bad effects resulted.

Jan. 12th, 1866.—One week after the close of a menstrual period. Operation. The patient was dressed in woolen under-clothing. The bowels and bladder were emptied. At 12 o'clock, noon, she began to take chloroform.* After she was fairly under its influence, she was removed into a room having a temperature of 75° F., and placed upon a table prepared for the purpose. Drs. Gilman Kimball of Lowell, H. J. Bigelow, R. M. Hodges, C. G. Page and D. W. Cheever of Boston, were then introduced. An incision through the integuments on the median line, from half an inch below the umbilicus to two inches from the pubes, was made, which was subsequently carried upwards about an inch farther. The fascia and other tissues, including a few fibres of the right rectus muscle, were carefully divided on a director, until the peritoneum was exposed. There was little or no bleeding, and the serous membrane was raised upon a hook and perforated, when a small quantity of ascitic fluid escaped. A very broad director was then introduced up and down, and the peritoneum divided upon the median line, exposing the tumor with a glistening opalescent surface and large vessels ramifying upon it. A silver catheter passed around, showed it to be non-adherent on its anterior surface. It was at once punctured with a half-inch trocar, but no fluid came. It was therefore freely opened with the knife. A great many cysts were successively broken down by the hand, discharging, some thin, and others thick and gluey fluid. The tumor burst in withdrawing it, which was a source of some delay. It was found to be adherent to the omentum above, and also by a small firm band to the mesentery. These adhesions were separated by the hand. The omentum bled freely and was tied in two places with fine silk, all the ragged parts being brought together and tied, and the

* Chloroform was used, because ether had on two previous trials produced obstinate and long-continued nausea and vomiting.

cut stump laid upon the skin until the rest of the operation was completed. The band of attachment to the mesentery was not tied, as it did not bleed. The pedicle of the cyst was about three inches long by three wide, and consisted of the right broad ligament, Fallopian tube and vessels, enlarged. A clamp applied to the pedicle broke and was removed. The pedicle was tied in three portions, the whole being surrounded with a stout silk ligature, and the tumor cut away. The pelvis was then thoroughly sponged out and wiped clear of clots and fluid. While doing this, another small cyst was found upon the left side, which had previously escaped observation, although that side had been searched. This cyst was about the size of a hen's egg, and contained a clear fluid in thin walls. It was opened, a piece cut out, emptied and returned. The ligatures around the pedicle were then wound around a director and brought, together with the ligatures upon the omentum, to the lower part of the opening. Three deep silk sutures traversing the skin, and also the peritoneum at about one third of an inch from its cut edge, brought the wound together. Adhesive straps were applied between. The whole operation occupied one hour. The patient was put to bed with bottles of hot water under the armpits and against the sides. The tumor and fluid contents weighed thirty pounds; the solid portion, six pounds.

After the operation. General appearance of patient good. Recovering well from chloroform. Pulse before operation, 92; immediately after, 80. At 3½, P.M., some backache, also nausea, belching of wind and sweating. Gave injection of tinct. opii., gtt. xxv., in water ʒ i. Hot linseed-meal poultice to abdomen. Champagne and ice. At 5, P.M., vomited one ounce of watery fluid, containing dark-brown masses. Pulse 80, feeble. Brandy and ice instead of champagne, which disagrees. Pain in pit of stomach. At 5.20 gave sol. morphiae, ʒ i., and at 5.45. At 6, complained of weight of bed-clothes. Sweating considerably. Nausea distressing. Removed poultice. At 6½, repeated the laudanum injection *ut supra*. Vomited once, with distress. Pulse 90. At 7, P.M., eight ounces of clear urine drawn by catheter, with relief. Dozed half an hour. At 8, P.M., pulse went up to 100. Nausea and belching, with distress. At 9.45, asked for gruel, and took three tablespoonfuls at intervals, with ice. At 10½, pulse 120. At 11.20, pain recurred in pit of stomach. Took sol. morphiae, ʒ i. Pulse 104, good. 1½, A.M., catheter passed; brought no urine. Thirst and vomiting, chiefly clear watery fluid. At 2, A.M., sol. morphiae, ʒ i., to relieve pain and vomiting; also injection of laudanum, gtt. xxv. At 4½, P.M., patient in great distress. Vomited a large quantity of water, with relief. At 6, A.M., nausea very distressing. Has not slept during night. Pulse 116; soft. At 7½, P.M., faintness occurring, I let go the ligature, removing the director entirely, introduced my finger and opened the lower portion of the wound. No decided tympanites. Re-applied hot flaxseed poultice. Injection of brandy and laudanum. 8.20, pulse

140, soft. Has vomited once since letting go ligature. Says she is dying. At 9, pulse scarcely perceptible. Nausea continues. Twelve ounces of dark-red urine drawn by catheter. Complains of pain over the bladder. A thin, reddish, sero-purulent fluid flows freely from lower end of wound. Introduced a small silver tube and drew off several ounces of this matter. Left the tube in the aperture. A tent of cloth was afterwards substituted. Complains of feeling chilly. Vomits a substance like coffee-grounds. Great prostration. Sordes on teeth. Injection of beef-tea and brandy, which was retained. Brandy and soda water by the mouth. At 10½, A.M., dozing, with labored respiration and occasional sighing. Face blue. At 11, drawing up her knees. Complains of weight in bedclothes, which are raised so as scarcely to touch her. Skin cold and clammy. Pulse 160. Face anxious.

From this time she sank, though conscious to the last. Nausea and vomiting ceased in great measure during the afternoon. Turned herself and drew up her knees repeatedly. Very profuse discharge from aperture by the side of the tent. Injections and the rectum-tube were applied without relief. Not much tympanites. At 5, P.M., six ounces of high-colored, turbid urine drawn. At 6, P.M., had a stool in bed, consciously. Death at 7, P.M. No *post mortem*.

AIR COOLER AND PURIFIER.

[The following letter to one of the Editors cannot fail to be of general interest.—EDS.]

NORTHAMPTON, MASS., May 7th, 1866.

MY DEAR DOCTOR,—Your kind favor of the 30th April was duly received, and I willingly comply with your request to send for the JOURNAL a description of the "air cooler and purifier" which I saw in operation.

While pursuing, last winter, in New York, some investigations on the old subject of heating and ventilation, my attention was directed to an apparatus for *cooling* and ventilating. It was said to be in operation at the Bellevue Hospital, and to have received commendatory notice in letters to the inventor from Professors Flint and Doremus. Failing to find either of these gentlemen I sought the inventor, and his son accompanied me to the Hospital, where two of the "purifiers" were in operation.

The apparatus consists of a tight box of wood, about six feet in height, and fifteen by twenty-three inches on the sides. It is placed at the head of the patient's bed. In the box are shelves or pans. The lowest contains lumps of quicklime. The next above, which is of wire netting, is filled with small pieces of charcoal, and one in the upper part, under a metallic roof, holds small fragments of ice. Air is admitted to the lower part of the box by a side opening.

Passing over the lime, which absorbs some of its moisture, the air becomes slightly warmed, and rises through the charcoal to the top of the box. Here, coming into contact with the ice, it is cooled, falls in an accelerated current through a flue, and flows from the box through another opening just above and on one side of the patient's head. A slight frame supports, around the bed, a curtain, which is tucked under the mattress to prevent the cooled air from flowing off to the floor. Here, within his curtains, the patient is immersed in a bath of pure and cool air about thirty inches in depth.

This is a very meagre description of a very simple apparatus, and one would hardly expect any great effect from such a combination of such materials. It was therefore with great surprise I heard from the patient the great praise he bestowed on what he called his "blower." His remark was that "the air from it was as cool and fresh as if it came from an open window," and he complained bitterly of the negligence of the nurse, who sometimes failed to give him a full supply of ice for the night.

The great difference, however, between the temperature (and other sensible qualities) of the atmosphere outside and inside his curtain, as roughly tested by placing the head and hand for a few moments inside the inclosure, was quite sufficient to satisfy one that the patient had sufficient cause for his somewhat enthusiastic eulogium.

If further experience demonstrates that this simple apparatus is really what a cursory inspection leads one to believe—if the evidence of the senses is corroborated by the more severe tests of science—one sees at a glance its wide application to the wants of our patients in hospital and in private practice. They have received a boon of incalculable value in this simple contrivance.

The theory of its operation is plausible. We all know the decolorizing and disinfecting properties of charcoal; its power to absorb from the atmosphere and destroy the ammoniacal, sulphurous and organic compounds which render the wards of a hospital so unpleasant and unhealthy, each cubic inch of charcoal taking up and destroying ninety cubic inches of ammoniacal gas, eighty cubic inches of sulphuretted hydrogen and considerable quantities of other deleterious compounds. We also know that quicklime has a great affinity for carbonic acid, every one hundred pounds absorbing twenty-four pounds of this gas; and that it absorbs and decomposes sulphuretted hydrogen, the compounds of ammonia and other products of animal decomposition. The other material used—ice—presents, on its surface, a thin layer of water, which is another absorbent of sulphuretted hydrogen and ammoniacal gas, taking up 780 times its bulk of the latter.

We have, then, in this apparatus, three great absorbents of the disgusting and deleterious products of decomposition—three of Nature's great purifiers—and, theoretically, this combination *ought* to

result in a great purification of any current of air thoroughly exposed to its action.

The problem was to force a current over these materials, after they had been selected, and to collect and retain, where it was wanted, the air thus purified. The inventor has here availed of the natural laws according to which warm air rises and cool air falls. He claims that it supplies from fifty to eighty cubic feet of purified air every minute, and that "thirty pounds of ice will blow sixty cubic feet a minute for eight or ten hours in a warm night"; and that "the expense of materials (ice, charcoal and lime) for providing a steady current of fifty cubic feet a minute, perfectly purified, and in the hottest weather cooled 20° , and properly dried, has been less than two cents an hour."

If the half of this should prove true, one need not lie in gasping, sweltering wakefulness through the tedious hours of a smothering summer night, sighing for a breeze from the ocean or the mountain. If, again, the current flowing over their beds is so cooled and so purified, we need no longer send our little cholera infantum patients to the mountains, because, in fact, the mountain has come to them. The cool freshness of the snowy peak, even, may be made to surround and impart to the sufferer its tonic virtue, even in the heart of a crowded, heated city.

By changes in the materials through which the air is made to pass, it could be adapted to many varying wants of our patients. The cooling, alone, would be productive of great benefit and comfort in many cases. There is no one of us, however healthy, who would not feel better for a night passed comfortably in a moderate temperature, after the exhausting heat of a midsummer day; and probably very many cases of the diseases so prevalent during the excessive heats of summer might be prevented by the use of some such means as are here offered.

The cooling is, however, quite secondary in importance to the purification; and if the fact of purity can be established, one would not incline to discuss the point of temperature. For a field is at once opened far wider than the narrow limits of a single bed in a hospital ward or private house. One naturally asks why a whole ward should not be purified; and if one ward, why not a whole hospital or dwelling house? Then, why should not those awful scourges that visit us in the forms of erysipelas, pyæmia, gangrene, diffuse suppuration, puerperal fever, and the whole foul race that breed and revel in a noxious atmosphere, be forever banished—charred and calcinated out of existence.

May not this little simple box contain the germ of an apparatus easily adapted to the purification of a whole hospital? May it not be an anti-Pandora-box? Means less expensive than ice could be used for establishing the current, and also for cooling it. And, if

the lime and charcoal failed to eliminate from the air the germs of those troublesome diseases which so infest our hospitals at times, might they not so *modify* the atmosphere as to destroy their proper *nidus*, and thus *render them abortive*? or prevent germination and development of fungus or animalcule *by the destruction of their proper and specific pabulum*?

I trust this little apparatus may have among you in Boston the fair trial to which its claims and its apparent success seem to entitle it, and that among the scientific men collected about your hospitals some may find leisure to examine and report upon these claims, and that speedily.

Very truly yours,

W. H. PRINCE.

Reports of Medical Societies.

ANNUAL MEETING OF THE NORFOLK DISTRICT MEDICAL SOCIETY AT DEDHAM, MAY 9TH, 1866.

THE Society met at the Phoenix House, at 11 A.M. The President, Dr. Cotting, in the chair. The records of the last meeting were read and accepted. In the unavoidable absence of the secretary, Dr. Z. B. Adams, of Roxbury, was appointed secretary *pro tem*. A committee was appointed to nominate officers for the coming year.

The Treasurer's report was read and accepted.

The President stated the necessity of increasing the annual assessment, and suggested the propriety of intimating to the Councillors of the Massachusetts Medical Society the opinion of this society in regard to the matter.

The District Treasurer remarked that the present allowance did not meet the requirements of the District Society.

Voted, on motion of Dr. Draper, of West Roxbury, to notify the Councillors of the willingness of this Society to have the annual assessment raised to five dollars—one fourth to revert as heretofore.

Nem. con.

Voted, to adjourn for dinner at 1½ o'clock.

Voted, that the next meeting be held in Roxbury.

A paper was read by Dr. Z. B. Adams, of Roxbury; case of ovariectomy, fatal. The President remarked upon the importance of reporting the unfavorable cases of this operation, in order to obtain a correct estimate of its dangers, and stated that he knew of at least one other fatal case of ovariectomy, in Roxbury, as yet unreported, and believed there had been still another quite recently.

Dr. Munroe inquired if chlorate of potassa had been tried in Dr. A.'s case. Dr. A. replied no, but the bromide had.

Dr. Munroe, of Medway, read a case of opium poisoning successfully treated by the continued dropping of cold water from a height upon the epigastrium.

Dr. Salisbury stated that the effusion of cold water upon the head in opium poisoning had been employed in England.

The President presented Dr. Richardson's pulverisateur, just brought

from London by Dr. Langmaid, of Boston, and a bottle of Rhigolene for producing local anæsthesia, and showed the manner of using it. He had employed this lately in a case of so-called "ingrowing toe-nail." The parts were frozen in a very few seconds, and the portion removed without pain to the patient. His method is to remove a portion of flesh from the side of the toe (say three quarters of an inch long and one half inch wide), including the diseased portion. He had practised this method many years, and had never as yet known of its failure to remove the difficulty.

Dr. Munroe described the practice of Dr. Miller, of Providence, in "ingrowing toe-nail," namely, to remove a large portion of the side of the toe, with a part of the nail, by the use of a gouge, applied upon the toe-nail and struck with a hammer.

The President stated that he had not found it necessary to remove any portion of the nail.

Dr. Bullard, of Dedham, showed some photographic portraits of distinguished French physicians and surgeons, including Ricord, Nélaton, Velpeau, Maisonneuve, Bernard, &c.

The President presented a copy of the Annual Dictionary of Dr. Garnier, of Paris, and read a critique upon it.

On report of the Committee on Nominations, the following officers were unanimously chosen, by ballot, for the year 1866-7:—*President*, Dr. B. E. Cotting, Roxbury; *Vice President*, Dr. Jonathan Ware, Milton; *Secretary*, Dr. Edward Jarvis, Dorchester; *Treasurer*, Dr. Eben. P. Burgess, Dedham; *Librarian*, Dr. David S. Fogg, South Dedham; *Councillors*, Drs. B. E. Cotting, J. G. S. Hitchcock, Edward Jarvis, S. Salisbury, Ira Allen, E. P. Burgess, C. C. Holmes, A. LeB. Munroe, Eben. Stone; *Censors*, Drs. G. Faulkner, W. C. B. Fifield, J. Seaverns, C. C. Tower, J. S. Greene; *Commissioner of Trials*, Dr. Ebenezer Alden; *Committee of Supervision*, Drs. J. P. Maynard, J. A. Stetson.

Dr. Salisbury, of Brookline, then read the annual address, on "Our Habits of Social and Domestic Life."

Voted, on motion of Dr. Robinson, of Roxbury, that the thanks of the Society be presented to Dr. Salisbury for his interesting and suggestive address.

Dr. Munroe said that he was glad to hear Dr. Salisbury's views on education and the management of children, and that he thought the plan instituted by Horace Mann had been productive of harm from the continued application which was expected of children. That he thought there was not attention enough given to physical training. He advocated longer intermissions and out-of-door labor.

Dr. Alden, of Randolph, spoke of the injurious length of the sessions of schools, from 9 till 2, with only a quarter of an hour's intermission. Dr. Alden asked the Society to invite Dr. Salisbury to furnish a copy of his address for publication.

Dr. Holmes, of Milton, expressed similar views.

Dr. Burgess, of Dedham, spoke of the necessity of attracting attention to this important point, citing cases of impaired health in young people from too close application in school, and stating that as much could be learned without such close confinement.

Voted, that Dr. Salisbury be requested to furnish a copy of his address for publication.

The President appointed Drs. Fogg, Gilbert, Greene, Hitchcock and Holmes a committee to report a subject for discussion at the next meeting.

The meeting adjourned until 2½ o'clock, for dinner.

The Society met at 2½, P.M.

Dr. Fay, of Weymouth, having been examined and accepted by the Censors, signed the By-laws, and became a member of the Society.

The Committee on the subject for discussion at the next meeting reported, "The effect of the prevalent method of common school education upon the mental and physical development of the child." Report accepted.

Dr. Arnold, of Roxbury, exhibited photographs and read a description of a rare case of congenital hypertrophy, discoloration and corrugation of the skin of the forearm and shoulder in an infant.

Dr. Tower, of Weymouth, spoke of a somewhat similar case seen by him.

Dr. Stedman, of Jamaica Plain, read a case of excessive neuralgic pain following amputation of the forearm after injury.

Dr. Burgess, of Dedham, expressed his great interest in the paper read by Dr. Stedman. Dr. Arnold and others spoke of the value of subcutaneous injections in such cases.

The President spoke of cases reported relieved by enveloping a suffering limb with vapor, and cited a case of a subaltern officer, where there was no benefit from injection, or other treatment, but a favorable change came with time.

Dr. Tower, of Weymouth, cited a case of neuralgia of thirty years' standing, following an injury to the hand, where amputation was performed to remedy the symptoms.

Dr. Stedman stated that, in the case he reported, there was great improvement in the process of healing, after the second resort to subcutaneous injection, but no relief of pain. The first trial, three weeks previously, failed to benefit.

After a very full and animated session, the Society adjourned at 3¾ o'clock.

Z. B. ADAMS, *Secretary pro tem.*

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

SECOND DAY, May 2.—The Association was called to order by the President, Dr. D. H. Storer, at 9, A.M.

The Committee on Epidemics, Meteorology, &c., having been called upon, Dr. Davis stated that Dr. Hamill, of Ind., had presented a report, which he had taken to the Section on Epidemics, &c.

Dr. Cox made an additional report from the Committee on Arrangements on Railroads, that invitations had been received from Drs. Smith and Donelson, for the members to visit their houses that evening. He also recommended the following gentlemen as members by invitation: Drs. Jno. A. Reed, W. Whitridge, L. M. Eastman, of Baltimore; Peter Parker, of China. They were elected.

On motion of Dr. Davis, the order of business was suspended.

The report of the Committee on Publication was read and accepted.

On motion of Dr. Sayre, of New York, the Publication Committee were authorized to enforce strictly the rules in regard to proofs, &c.

The Treasurer then read his report, which was referred to the Committee on Publication.

On motion, the order of business was resumed.

On motion of Dr. Davis, a recess of fifteen minutes was taken by the Association, to allow of the appointment of members of the Nominating Committee.

The Nominating Committee.—On the resumption of business, the following members of that Committee were announced:—J. C. Weston, Me.; J. C. Eastman, N. H.; Wm. McCollom, Vt.; J. R. Bronson, Mass.; D. King, R. I.; W. Woodruff, Conn.; J. C. Hutchison, N. Y.; W. Pierson, Jr., N. J.; H. F. Askew, Del.; John L. Atlee, Pa.; J. J. Cockrill, Md.; M. A. Pallen, Mo.; N. S. Davis, Ill.; W. Lockhart, Ind.; J. M. Witherwax, Iowa; N. R. Bozeman, Ala.; C. M. Stockwell, Mich.; H. Van Dusen, Wis.; T. A. Atchison, Tenn.; G. Fries, Ohio; G. Tyler, D. C.; W. M. Charters, Geo.; Josiah Simpson, U.S.A.; Ninian Pinkney, U.S.N.; Greenville Dowell, Texas.

Dr. W. Hooker offered the following resolution, which was unanimously adopted:—

“Resolved, That no report or other paper shall be presented to this Association unless it is so prepared that it can be put at once into the hands of the Secretary, to be transmitted to the Committee on Publication.”

Dr. Wister, of Pa., offered the following, which was adopted:—

“Resolved, That Drs. Grafton Tyler, W. P. Johnston and Jas. M. Toner, of D. C., be a Committee to procure a room in the Smithsonian Institution for the preservation of the Archives of the Association.”

The Committee on Medical Education not having prepared a report, Dr. J. F. Hibberd offered instead thereof the following preamble and resolution, and moved that it be adopted as the sentiment of the Association:—

“Whereas, Two thirds of the Medical Colleges of the States of Ohio, Michigan, Illinois, Iowa, Missouri, Kentucky and Tennessee, by delegates in convention assembled in Cincinnati, on the 24th of April ult., did, by resolution unanimously adopted, declare their willingness to make their annual college sessions to continue for six months, and to establish a uniform rate of fees, if the other principal colleges of the country will coöperate; now, therefore,

“Resolved, That the American Medical Association hereby expresses its warmest approbation of the action of the above recited colleges, and expresses the hope that every medical college in the Union will concur in the proposition thus made.”

On motion of Dr. Taylor, of Iowa, its consideration was postponed till 11, A.M., on Thursday, to be acted upon in Committee of the Whole.

Dr. C. A. Lee, of New York, commenced reading his report upon Medical Literature. He divided up his subject as follows:—I. Periodical Medical Press. II. Medical Literature of the War. III. Literature of the Sanitary Commission and of Sanitary Sciences. IV. State and County Society Transactions. V. Literature of Special Subjects and of Specialties. VI. Literature of Pharmacy and Materia Medica. VII. Of Vital Statistics. VIII. Of Life Assurances. IX. And of Introductory Lectures.

He was interrupted at 11 for the regular order of business, which was the lecture of Dr. Brown-Séguard, on the Treatment of Functional and Organic Diseases of the Nerves.

On motion of Dr. Raphael, of N. Y., the thanks of the Association were tendered to Dr. Brown-Séquard for his interesting, able and eminently practical lecture, and he was requested to furnish an abstract for publication.

Dr. C. A. Lee then resumed the reading of his report.

After this had continued for some time, on motion of Dr. Toner, the further reading was discontinued, and the paper referred to the Committee on Publication.

Dr. Sam'l D. Gross, Chairman of the Committee on Medical Education, reported that he had not prepared a report, and asked that the Committee be discharged, which was granted.

Report of Prize Committee.—Dr. E. Eliot, Secretary of the Committee on Prize Essays, read the report of that Committee.

On breaking the seals, Dr. W. F. Thoms, of New York city, was ascertained to be the author of the "Essay on Health in Cities," &c., and was entitled to the first prize, and Dr. S. R. Percy, of N. Y., on "Digitaline," &c., to the second.

On motion, the paper on Angular Curvature of the Spine was referred to the Section on Surgery.

The report of the Committee on Medical Ethics having been offered, it was made the special business for 9.30 on Thursday.

Dr. Marsden, of Canada, having been announced as desirous of making some remarks on Cholera, on motion, it was agreed that he should follow immediately after the report on Medical Ethics.

Dr. Cohen offered a paper on Paralysis of the Vocal Chords and Aphonia, &c. Referred to the Section on Surgery.

Dr. H. R. Storer offered a paper on the "Clamp Shield," an instrument designed to lessen the dangers of extirpation of the uterus by abdominal section.

Dr. Bozeman, of Ala., was introduced to the Association, and on motion of Dr. Holton, he was made the member of the Committee on Nominations for Alabama.

Dr. Askew offered the following resolution on the death of Dr. Couper, which was unanimously adopted:—

"Whereas, We have heard with profound regret of the death of our deservedly esteemed friend and associate, James Couper, M.D., of Delaware, late Vice President, and one of the founders of the American Medical Association; and whereas, we desire to express our high appreciation of his worth as a man, and valuable and untiring energy in the cause of medical science; mild, modest and unassuming, of devoted piety, he was firm, constant and reliable; a strict adherent to the ethics of the profession, he occupied a front rank, and died beloved, respected and lamented by all who knew him.

"Resolved, That in the death of Dr. James Couper we have lost a friend and brother, and that we sincerely and deeply condole with his sorrow-stricken widow and family, and that the Secretary be authorized to forward a certified copy of these resolutions to his family."

Dr. Toner, of D. C., offered the following resolution, which was adopted:—

"Resolved, That instead of yearly reprinting the list of members of the American Medical Association with the Transactions of the same, the Secretary be instructed to prepare and have printed in pamphlet form, a triennial alphabetical catalogue, containing the Constitution of the Association, and a list of members, with their full names, designating their residences, the year of their admission, arrearage of yearly dues, the offices they may have held in this body,

and in case of death or resignation, the year, and distribute the same among the contributing members."

On motion, the resolution was referred to the Committee on Publication.

Dr. J. C. Hughes, of Iowa, offered a paper on Lithotomy, which was referred to the Section on Surgery.

Dr. Taylor, of Iowa, introduced a resolution for the appointment by the President of the Association of a member from each State, to memorialize Congress for an appropriation to publish the reports and documents of the Surgeon-General of the United States.

Dr. Pallen recommended that the reports and documents of the like character connected with the rebel army be also referred to the same committee for access to the same. Dr. Pallen, after some discussion, withdrew his amendment.

The original motion was carried.

It was then moved that the President announce said Committee on Thursday morning.

The meeting then adjourned.

THIRD DAY, May 3d.—The Association was called to order at 9, A.M., by the President, after which the announcement of the members of the Committee to memorialize Congress on the publication of the surgical history of the war was made.

Dr. C. C. Cox, of the Committee on Necrology, reported progress, and on motion of Dr. Hibbard, permission was given the reporter to send the report, when ready, to the Committee on Publication.

The Death of Prof. Joseph M. Smith, of New York.—Dr. Alfred C. Post offered the following, which was unanimously adopted:—

"*Resolved*, That the Association has heard with sincere regret of the death of its late distinguished member, Joseph M. Smith, M.D., of New York:—

"*Resolved*, That we cherish his memory as that of a learned and skilful cultivator of medical science, an able and successful teacher and writer, an upright and honorable man, and a patriotic and public-spirited citizen.

"*Resolved*, That the Secretary communicate to the family of the deceased an expression of our sympathy with them in their bereavement."

Dr. C. A. Lee rose to speak to these resolutions, which he did with much feeling. He hardly thought that it was necessary to say anything in regard to the life or character of such an excellent and well beloved man, but as he had been intimately acquainted with him for over thirty years, he did not think it out of place for him to say a few words. After referring in an appropriate manner to his acquaintance with the deceased, he remarked "that a more pure, upright and conscientious man I never knew, particularly with reference to his intercourse with medical men. When I think of the great loss we have sustained in him, I am at a loss to express myself."

Dr. J. S. King, of Natchez, Miss., forwarded a communication to the Association, stating that he was engaged in the compilation of the mortuary and similar statistics of the principal cities and towns of the country, and requesting that physicians would transmit to him such information upon those subjects as they could gather in their respective localities.

The Secretary read a communication from the Dubuque (Iowa) Medical Society, requesting the erasure of the name of Dr. Asa Horr.

On motion of Dr. Jewell, the request was granted.

Dr. Mayburry, on behalf of the Committee on Publication, to whom Dr. Toner's resolutions were referred, reported the following as a substitute, which, on motion, was adopted:—

"Resolved, That instead of yearly reprinting the list of the members of the American Medical Association, the Committee on Publication be instructed to prepare and print with the Transactions, an alphabetical catalogue triennially, containing a complete list of the permanent members, with their names in full, designating their residences, the year of their admission, the offices they may have held in the Association, and in case of death or resignation, the date thereof."

Dr. Mayburry also presented the following, which, on motion, was referred to the Committee on Ethics.

"Whereas, Medical organizations, such as National, State and County Societies, are believed to be absolutely necessary to preserve the honor of the medical profession, and to keep alive social and fraternal feelings among the members thereof, as well as an important means of promoting medical knowledge and elevating the character of the profession, therefore,

"Resolved, That it is with sincere regret that we, the members of the Montgomery County Medical Society of Pennsylvania, learn that some honorable members of the faculties of our medical colleges in Philadelphia and elsewhere, have kept aloof from the county societies on which rest both State and National organizations, thus ranging themselves on the side of those whose unprofessional conduct or low standard of medical attainment, or disregard of medical etiquette, prohibits them from membership in those societies.

"Resolved, That as graduates of the University of Pennsylvania, Jefferson Medical College and Pennsylvania Medical College, we have a high regard for the teachers of those institutions, and feel that they owe it to the profession and to our Alma Maters to give their hearty support to medical organizations in general, and especially to the County and State Medical Societies.

"Resolved, That although Colleges are entitled to representation in the American Medical Association by one or more of their Professors, we are decidedly opposed to any College or any other medical organization being represented by a Professor who is not a member of a County Society.

"Resolved, That the Corresponding Secretary of this Society be instructed to report these proceedings to the Philadelphia County Medical Society, and that our delegate be charged to lay them before the American Medical Association at the coming meeting to be held in Baltimore on the first day of May next, as well as before the Medical Society of the State of Pennsylvania at its next meeting, to be held at Kingston, Luzerne County, on the thirteenth day of June ensuing."

E. SMYSER,

Cor. Secretary.

W. P. ROBINSON,

President Montgomery Co. (Pa.) Med. Society.

The Report of the Committee on Ethics.—Specialties in Medicine.—Dr. Worthington Hooker offered the majority report, and in the main took the ground adverse to exclusive specialties. He divided up the subject into exclusive and partial specialties. In reference to exclusive specialism, he maintained that local affections were apt to be unduly estimated, to the exclusion, perhaps, of other parts of the system that were of more importance in the production of a particular disease; that diseases cured by a specialty are magnified in their importance; that specialists too frequently undervalue the treatment of diseases by the general practitioner; that there is a temptation to employ undue measures to obtain notoriety; and that he is further tempted to charge unduly large fees. The field of medical practice was so large that the profession was always willing to seek advice from those who had devoted attention to particular subjects; but this should not encourage exclusive specialism. The specialty should be a natural outgrowth from the general practice, and should never be separated

from it. If this were so, a full, frank and free intercourse would be had between the specialists and general practitioners. The means availed of by the specialists to bring this fact before the public should be ordinary, and not extraordinary. There should be neither advertisements nor puffs in the newspapers. The professor in a school has been chosen for it by those who are competent to discuss his merits for that position; if he were by himself to place before the public the fact that he is specially skilled in the branch taught by him, he would come under this censure.

The report was well drawn up, and claimed the undivided attention of the members.

Dr. Kennedy, of New York, followed with a minority report, stating that he would read it in the absence of the writer. The writer believes that the whole tendency in every department of science is towards specialties. Science has been advanced during the last century by this course. Recently this tendency has shown itself in the persons of certain practitioners who resign all general practice, and confine themselves to the specific department they have chosen. No association can object to the advertisement in such cases, unless it is of a mountebank character. The report was signed by H. I. Bowditch.

The subject was then discussed by Drs. H. R. Storer, of Boston, Worthington Hooker, of New Haven, and others; but the hour of 11 having arrived, Dr. W. Marsden, of Quebec, was introduced, and proceeded to address the Convention on the subject of cholera connected with quarantine.

[To be concluded.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 24, 1866.

ANNIVERSARY OF THE MASSACHUSETTS MEDICAL SOCIETY.

It will be remembered that a resolution was adopted at the last meeting of our State Medical Society to hold a meeting on the day preceding that of the annual meeting, and a committee was appointed to determine how the time should be occupied. It will be seen by the card which has been sent to each member, and by the advertisement published in the *JOURNAL*, that the committee has prepared a programme which promises to make the occasion unusually interesting and instructive, and we trust that every one will show his sympathy with this effort to give new vitality to our ancient Association by coming to town on Tuesday. The meetings have been poorly attended of late, and the yearly publications have presented a very meagre appearance when compared with those of many of our neighboring State Societies, but it is evident from the variety and number of papers to be read on both days of the meeting that we shall not lack material for the next volume; so much has been provided, indeed, that there will be hardly time for their authors to give more than a brief abstract of what they have written.

The dinner which has been ordered by the committee of arrange-

ments, will be served in the beautiful Music Hall, and will be of a character to make amends for the shortcomings of the past two years. Many distinguished gentlemen have been invited to be present, and good speeches and good music will undoubtedly be heard. The museums also which will be open to members on the afternoon of the first day should be borne in mind, and the opportunity of seeing the rich collections they contain should not be neglected by those living at a distance from Boston.

The meeting of the Councillors will be held as usual on the evening of Tuesday, and several matters of importance to which we have lately called the attention of Fellows will, as we hear, be discussed. Very liberal arrangements have been made with the various railroads leading to Boston, by which members of the Society will be permitted to travel, at greatly reduced rates, and we hope that every county in the State will be well represented at the meeting.

American Microscopes.—During the past three years the importation of microscopes has been almost entirely stopped, while the demand for them has much increased. A consequence of this state of affairs is, that all the American opticians have orders in hand entirely beyond their ability to supply. A company is now being organized in this city to establish a manufactory in Boston or immediate vicinity, for the purpose of supplying the great demand for instruments. Mr. R. B. Tolles, of Canastota, will remove his establishment here if the small amount of funds required to enlarge his works is furnished. All who have read Prof. Holmes's articles, in the *Atlantic Monthly*, are aware of his estimate of the quality of the "Canastota microscopes;" and most of the best microscopists in this country know that Mr. Tolles has, for the last eight years, been producing "objectives" fully equal those made by C. A. Spencer, of the same place (who may be considered the originator of the modern "objective" of very large angular aperture), while the mechanical part of Tolles's work is, to say the least, unsurpassed, if it is equalled, by that of any workshop in London or Paris. Beside the superiority of Mr. T.'s work, he has made many and valuable improvements in the construction of his instruments, among which may be named his amplifier, doubling the magnifying power of all the combinations, his solid eye pieces, and his binocular eye piece, which, according to the testimony of Prof. H. L. Smith, far surpasses in its performance the binocular prism and tubes of Mr. Wenham, of London, which have been so highly appreciated in England that they have been sold by thousands. Mr. T.'s present location—some four hundred miles from the great cities of the country—is one utterly unsuited to his business, for purchasers cannot consult him in person, except by taking an expensive journey. But very few first class mechanics, such as he requires, will consent to go to such a place, or if they get there will remain, in consequence of which he is nearly or quite two years in arrear of his orders, and students in all departments of science are delayed in their studies for the want of instruments. American instruments have a double protection against foreign competition, a duty of 40 per cent., and are in every respect superior to the best instruments made in London, which in their turn surpass any made in Paris. There can be no reasonable

doubt of the success of such an establishment here. A large part of the capital stock is already taken, and it only remains for the friends of American science and art to take the balance, to found a workshop that will redound to the credit of the country. S.

EXTRACT of a letter from the Rev. Mr. Chester, Missionary of the American Board at Diuidigul, Southern India :

"In one of my former letters I spoke of a great heathen festival, held at a village five miles from Diuidigul, called Tahdikombo. It is held annually the last of October. This year cholera was taken from that feast to more than one hundred villages in the Diuidigul district, and perhaps to a thousand others in different parts of our mission field. I have not seen so much cholera since I have been in India. In the town of Diuidigul I attended over seventy cases, and we sent out medicine from the dispensary to more than three hundred more in the villages at or near which we have catechists. In one village where we have a congregation and school, seventeen recovered, out of twenty-one cases where our medicine was used ; and the four cases of death were of those who sent for medicine after the state of collapse was fully established."—*Missionary Herald for May*.

FROM the Thirteenth Annual Report of the Directors of the Insane Asylum of California, we learn that the number of patients in the institution Sept. 30, 1864, was 581 ; number admitted, 268 ; whole number under treatment, 849. Number of patients discharged cured, 93 ; improved, 11 ; unimproved, 4 ; died, 82 ; eloped, 27. Number of patients discharged, died and eloped, 217. Number of patients remaining October 1, 1865, 632.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 19th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	36	49	85
Ave. mortality of corresponding weeks for ten years, 1856—1866	35.6	36.7	72.3
Average corrected to increased population	00	90	78.86
Death of persons above 90	0	0	0

BOOKS AND PAMPHLETS RECEIVED.—Clinical Notes on Uterine Surgery, with special reference to the Management of the Sterile Condition. By J. Marion Sims, A.B., M.D., late Surgeon to the Woman's Hospital, New York, &c. New York: Wm. Wood & Co.—Reflex Paralysis: its Pathological Anatomy and Relation to the Sympathetic Nervous System. By M. Gonzalez Echeverria, M.D. (Univ. of Paris), Physician to the Charity Hospital, New York, &c. New York: Baillière Brothers.—Legislative Reports of the Investigating Committee, and other Committees, concerning the State Lunatic Asylum at Stockton, California. —Thirteenth Annual Report of the Directors of the Insane Asylum of California, 1865.

DEATHS IN BOSTON for the week ending Saturday noon, May 19th, 85. Males, 36—Females, 49. Accident, 6—apoplexy, 1—congestion of the brain, 1—disease of the brain, 4—bronchitis, 4—cancer, 2—consumption, 22—convulsions, 4—cholera morbus, 1—cystitis, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 4—drowned, 1—enteralgia, 1—epilepsy, 1—scarlet fever, 2—typhus fever, 1—hæmorrhage, 1—disease of the heart, 2—disease of the hip, 1—infantile disease, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 5—old age, 3—paralysis, 1—peritonitis, 1—pleurisy, 1—puerperal disease, 1—purpura, 1—smallpox, 2—syphilis, 1—teething, 1—unknown, 3.

Under 5 years of age, 24—between 5 and 20 years, 11—between 20 and 40 years, 26—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 50—Ireland, 27—other places, 8.

THE
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No. 18.

THE TREATMENT OF DISEASES OF THE AIR-PASSAGES BY
INHALATION.

By WILLIAM READ, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. —, æt. about 40, of sanguino-bilious temperament and generally vigorous health. Occasionally has had "colds," and in one instance suffered nearly three months from bronchitis brought on in this way. Belongs to a healthy family; one sister died of phthisis consequent upon pneumonia, after an illness of many years' duration. Patient dates her attack to a cold from exposure while riding, in the month of September last. She first came under my care in the ensuing month (October). There was dulness under the right clavicle, bronchial respiration, with decided expiratory sound, and a harassing cough, with but little expectoration. She was treated with the ordinary remedies, both internal and external, but with no apparent relief. At an examination made some weeks later, the same signs were observed, and apparently extending in area. Night sweats appeared, and general debility, with great depression of spirits and increase of the expectoration; the latter symptom to such an extent as to require her to leave the breakfast-table during a paroxysm of coughing. At this time—the last of December—I proposed to her to try the effect of inhalation. She consented. A solution containing ten drops of the liquid persulphate of iron (Squibb) to an ounce of water, with five drops of tincture of opium, was put in the cup, atomized by steam, and inhaled for twenty minutes at each sitting. The effect of this was marked. After a very few inhalations the sputa began to diminish in quantity, the paroxysms of coughing grew less frequent and her hope revived. This treatment was continued, and the report in my record book is that on the 12th of January "has no paroxysms of coughing at all now." Three days later, she reported that all expectoration had ceased, and her cough was like a dry, irritating hack. About this time, owing to the inclemency of the season, which rendered it difficult for her to visit me, the inhala-

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tions were very much interrupted and at long intervals; but in spite of this disadvantage she reported no relapse, although in the meantime she had an attack of influenza, consequent, probably, upon some exposure.

Feb. 6th, the solution of iron was changed for a mixture much used in Dr. Charles Warren's inhaler, and which, as reported by him, had proved of service in diseases of the pulmonary organs, but without any perceptible effect. Subsequently, muriate of ammonia, alum, chlorate of potash, and tannin, in solution, were tried at various times. Of all these, the muriate of ammonia, in the strength of ten grains to the ounce of water, with five drops of tincture of opium at each inhalation, proved most serviceable. It seems to have the property of allaying irritation of the mucous membrane and promoting expectoration to a greater degree than any other article of the materia medica which I have tried. On the 12th of April, a thorough examination of the lungs was made, with the assistance of Dr. C. Ellis, with the result of finding no appreciable disease. The portion under the right clavicle, where the disease originally was, was found to be, so far as perceptible to the ordinary methods of examination, in a perfectly healthy condition.

J. M., æt. about 17; tall and well formed, but of scrofulous diathesis. On July 19th, 1865, had an attack of tonsillitis, which was treated by application of tincture of iodine and a wet pack to the outside of the throat. The acute stage passed and a chronic state of ulceration ensued, which resisted treatment of every kind. Partial attempts at steaming, as well as the application of various caustics and astringents, were each in turn tried, but with only temporary success. Iodide of potash, combined with various tonics and different forms of iron, were also given, with the same want of success, so far as any permanent relief was concerned. Jan. 19th, just six months from the date of the first seizure, inhalation was commenced with a mixture of the liquid persulphate of iron in the proportion of ten drops to the ounce of water. The effect was immediate and very marked. The inflammation of the throat disappeared, the ulceration healed, the soreness in swallowing, of which he constantly complained, went away, and on the last day of the month he reported himself well. In the right tonsil—both were considerably enlarged—was a hole into which a probe passed freely three fourths of an inch. As a matter of precaution the inhalations were continued, at not very long intervals, until February 25th. Towards the last, the solution of iron was occasionally changed for one of chlorate of potash—ten grains to the ounce—but as a whole the treatment was by the iron, and the beneficial effects are to be attributed to that.

Acute Bronchitis.—I was called to Mr. —, who is accustomed to attacks of severe bronchial inflammation, accompanied with great dyspnoea, very much resembling the respiration of asthma, and a copious secretion of tough, viscid, semi-purulent mucus, which is expect-

torated with great difficulty. These attacks have usually lasted a week before the acute stage was fairly ended. I found him laboring for breath, with a hoarse cough, and but little expectoration that he could raise, although the sound of the cough indicated that the amount of the secretion was very great. He was immediately subjected to an inhalation of a solution of muriate of ammonia of the strength already indicated, with the usual quantity of tincture of opium. After inhaling twenty minutes the expectoration became easy and copious, and the respiration was relieved. At the visit next day he expressed himself greatly relieved; that for a considerable time after the inhalation the day before, he had expectorated most copiously, and after that was free from cough till I saw him at the second visit. His throat was much congested, and the mucous membrane appeared a good deal relaxed, probably from excessive smoking, and I accordingly substituted a solution of tannin—five grains to the ounce of water—for the muriate of ammonia inhaled at the previous sitting. To this was added five drops of tincture of opium. He was much improved at the next visit. The severity of the attack was mitigated, so that the pulmonary symptoms no longer oppressed him. Inhalation of muriate of ammonia, with five drops of tincture of opium, as at the first visit, and *R. Podophyllin, gr. i.; leptandrin, gr. iv.; ext. cannab. ind., gr. i. M. Ft. pil. ij.* Take them at night.

On the next day, the fourth of the illness, he reported himself "well enough" of the trouble in the lungs, but suffering from influenza of the nasal passages. An inhalation through the nostrils was given—the same materials used as on the day previous—and I left him, to be called when needed.

In this case the treatment by inhalation brought the patient to the same degree of convalescence that under ordinary remedies and in former attacks occupied more than twice the time.

April 23d.—I was called to Mr. —, who was suffering from the effects of a cold terminating in severe bronchitis. He inhaled a solution of muriate of ammonia, with the usual addition of five drops of tincture of opium, and a recipe for an expectorant mixture was left, to be used p. r. n. In the evening of the same day I was suddenly called again, and on reaching the house, not immediately, however, I found him inhaling the vapor of iodine through the nostrils. His voice was sharp and stridulous—the voice of acute laryngitis—and he was anxious, and the cause of much alarm to his family. There was a good deal of pain, and a feeling as if some one was grasping him by the throat, so much so that before he began the inhalation of the iodine he feared suffocation. As soon as possible, the inhalation was prepared with a solution of muriate of ammonia, with five drops of tincture of opium, and he commenced to breathe the vapor. Its effect was magical. He again and again expressed his sense of relief, and in the course of an hour was entirely relieved from the

urgency of the symptoms. His voice, which, when I entered the door, was audible at every inspiration, with a true croupy ring, subsided into a hoarse whisper, and free expectoration was established. He was left, with directions to apply a wet pack to his throat, and if in the night the sense of suffocation returned, to use the inhaler at once, which was left ready for use on applying the lamp. Next morning he reported a good night's rest, with no return as yet of the trouble in the throat. Cough loose and easy, expectoration quite copious. Inhalation repeated as last night, but instead of water only in the boiler of the inhaler, an infusion of mullein (*verbascum thapsus*) was substituted, but with poor effect, as the vegetable matter held in solution clogged the tubes so much as to seriously impede the process. His report of yesterday is, that he felt no more particular discomfort than is usual to a severe cold until about 9, P.M., when he began to lose his breath and feel as if he were choking, and that from that time till he began the inhalation he had no relief. In the evening of the same day he reported having been comfortable, coughed much less, and had but little feeling of constriction about the chest. Inhalation of muriate of ammonia and tincture of opium. Voice still very hoarse.

From this time he rapidly improved, and on the 28th the record is: "Convalescent—The cure has been very much expedited by the inhalation."

April 22d.—Just previous to the occurrence of the last reported case, I was called to Mr. —, whom I found suffering from a return of hæmoptysis, to attacks of which he had occasionally been subjected during the past two years. For the past year his health had been comparatively good, with an occasional ill turn. Cough moderate, and principally confined to the morning. Expectoration quite free. This A.M., about 3 o'clock, was awakened from sleep by the taste of blood in his mouth. Since then—till 10, A.M.—has raised by estimate about half a teacupful. Auscultation revealed a cavity of considerable size under the right clavicle. Left lung not materially affected as yet. Sputa mixed with blood, quite fresh. Gave him an inhalation of persulphate of iron—five drops of Squibb's solution to the ounce of water, with five drops of tincture of opium. He is also suffering from a rheumatic affection of right knee-joint. Wrap the joint in a flannel wet with soap and opium liniment.

23d.—At the next visit, there being no increase of the hæmoptysis and the expectoration not being so free as it might be, the solution of iron was substituted by one of muriate of ammonia, with the usual laudanum.

24th.—Reports a very quiet day yesterday. Expectoration decidedly less in quantity, but entirely free and easy to raise. Inhalation of the iron, as at the first sitting.

25th.—Expectoration very free, but much diminished in quantity. Considerable blood mixed with it. Feels great relief from the in-

halation as compared with any treatment he had before tried. Inhalation of iron.

On the 26th and 27th nothing material was reported, and the inhalation of the solution of iron was repeated.

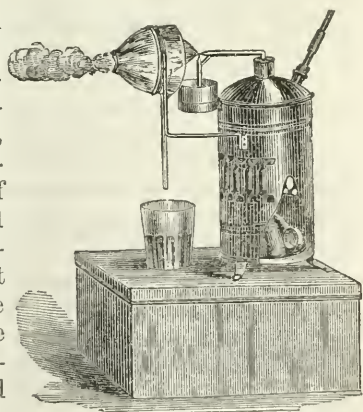
On the 28th, the blood had disappeared from the sputa and did not again make its appearance. The same treatment was pursued until attendance ceased.

Inhalation of remedies in the treatment of the various diseases of the air-passages and pulmonary organs, has been from the earliest days a favorite method of treatment. The very diversity of the means employed and the repeated attempts to devise some apparatus which should answer the end in view, testify in the strongest manner to the importance, in the opinion of the profession, of this department of practical medicine. How to combine facility of application, thoroughness of effect, and comfort to the patient with a moderate cost, has been the great question. The fault of the instruments heretofore made has been, that in obtaining a sufficient protection to the face of the person inhaling, the necessary machinery was cumbrous or liable to be easily deranged. It was too complex, or separated into too many parts, requiring great care in their proper adjustment and use. It is confidently believed that the apparatus of which the accompanying cut gives a good idea, is free from these objections, and will be found to meet every requirement of simplicity, durability, ease of application, comfort and cheapness. It has had an experience of some months' daily use, and has proved satisfactory in every respect.

The remedies used include all which can be administered in a liquid form by the mouth. For expectorants, iodide of potash, nitrate of potash, chlorate of potash, aqua calcis, and muriate of ammonia, in the proportion of ten grains to the ounce of water, have been tested with good effect; but the most direct in its action and productive of the best effect is the last named. My experience has been that an anodyne of some kind, varied according to the idiosyncrasy of the patient, is a useful and valuable addition at each inhalation.

For this purpose I have used tincture of opium, hyoseyamus and stramonium, in the proportion of five drops to the quantity inhaled—usually a fluidounce—at each sitting.

As astringents, in cases of hæmoptysis, chronic inflammation of the mucous membrane of the air-passages, and in the secondary stage of acute inflammation of the same regions, the liquid persulphate of



iron, a solution of tannin, alum, and in some cases the tincture of the perchloride of iron, are all of them useful. The last-named article has the fault of seriously affecting the teeth, and is objected to by patients. Its astringent property is much inferior to that of the persulphate, and in its effect is in no way superior.

As a vehicle in the production of the steam for atomizing these fluids simple water will be enough, although in some instances patients have expressed a preference for chamomile water or an infusion of mullein leaves; the former made in the usual way by triturating the oil mixed with magnesia in a quantity of water—one fluidrachm to an ounce of water—and the latter by simple infusion in boiling water. Two teaspoonfuls of the chamomile water introduced into the boiler will be sufficient to thoroughly impregnate the steam with its characteristic odor, and it no doubt acts as a gentle stimulant at the same time. At the preference of the patient, the same may be done with the other aromatic oils, such as spearmint, pennyroyal, &c. In the forms of asthma dependent on the metastasis of some form of eruptive disease, as maintained by Trousseau, a translation of whose article on this subject may be found in Vols. lix. and lx. of this JOURNAL, it might be well to try the liquor potass. arsenit. (Fowler's solution). I have used this in one case, but with no other effect as yet than that of proving its perfect tolerance in the same dose as directed for administration by the mouth.

Inhalation, as a mode of treating a certain class of diseases by means of the various apparatus that have been devised within a recent period, is as yet in its infancy. The results already attained warrant a favorable reception and careful investigation of its effects at the hands of the profession.

TREATMENT OF OPIUM POISONING BY A NEW METHOD.

[Read before the Norfolk District Medical Society, May 9th, 1866, by A. LEB. MONROE, M.D., of Medway.]

I WAS called in consultation to the wife of a clergyman, a lady about 44 years of age, who was in a state of ultimate narcosis from laudanum. She was found insensible upon her bed some three hours previous. Her family physician, Dr. H., was called, and immediately commenced a series of efforts to restore consciousness. A two-ounce vial, which had contained laudanum, was found in the room empty. After her recovery she said that she procured two ounces of laudanum of a respectable apothecary, and at about 4 o'clock, P.M., she took nearly one half of it, and the remainder about half an hour afterwards. Emetics of sulphate of zinc, ipecac, &c., had been given without effect. Powerful irritation of the surface, tickling of the fauces with a feather, etc., had been employed without any improvement; on the contrary, she was sinking, or had sunk, into a hopeless state. The pulse very slow, not over 45, and very weak, soft and

irregular. The respiration extremely unfrequent and stertorous, with frothing at the mouth. The skin was cold and clammy; face pale and cadaverous; in fine, she was in a state of profound *coma*, which was apparently soon to end in death. The stomach pump had not been used. I applied it and drew off the contents of the stomach, which had a strong smell of laudanum. The operation of passing the tube and thoroughly washing out the stomach did not rouse her at all. No galvanic battery could be had, and if it could have been obtained, I should have applied it with little confidence in its power to restore the patient. Dr. H. and her husband regarded the case as hopeless.

Years before I had read a book which gave some account of the tortures of the Spanish Inquisition, and among them all, there was one which was represented as causing to the miserable victim an agony more intense and excruciating than any other method that could be contrived by those devils incarnate. It was the dropping of cold water from the height of several feet upon the naked pit of the stomach. I determined to see if the method used by inquisitors to torment and kill heretics would not save the life of the wife of a Calvinistic preacher. I proposed it to him and Dr. H. They assented, with little faith in its success.

We placed her upon her back on the floor, with her head elevated a little upon a folded sheet; slipped her clothes down below her waist, leaving the chest entirely naked. A pail of cold water and a pitcher was brought in. I placed myself in a chair, and raising the pitcher filled with water to the ceiling, eight or nine feet from the floor, I allowed the water to fall in a small stream upon the epigastrium. By the time the first pailful was exhausted the breathing had evidently become a little more frequent and equable, and the stertor less. The second pailful was brought in, and soon, to my great joy, I could see that the deathly pallor of the face was being lighted up by the flow of the vital current from the heart. A blush, barely perceptible at first, gradually and steadily spread over the before pale and expressionless features, until it warmed into the full glow of life and health. (My feelings at this stage of the proceeding must have been in some respects not unlike those experienced by Pygmalion when his beloved statue of ivory began to live and breathe under his warm embrace.) By degrees other manifestations of returning life appeared. She began to make efforts to move away from the pouring stream, weak at first, but increasing in power, until she could turn partly over and interpose her hands to break the force of the stream. At length, after about three pailful of water had been used, her struggles to escape from what was now evidently torture were quite severe; and about this time, to our infinite satisfaction, she began to beg for quarter in long-drawn, drowsy syllables, increasing in energy and force until they were uttered in a tone and manner which evinced a considerable degree of passion and even anger at the strange and

cruel treatment to which she was subjected. But even now she would fall asleep immediately if let alone. Having continued it as long as we thought it necessary, we desisted and rubbed her dry with warm cloths. We then raised her up and walked her about the room, or rather about an adjoining room, which was dry, for an hour or more, resting at intervals. This was no easy task, for she was a full, well developed woman, weighing 140 or 150 pounds. She would beg piteously to be let alone and to lie down; and in spite of us she would often slip from our hands upon the floor. This forced exercise was continued until we deemed it unnecessary. She recovered without any permanent ill effect. It was the last attempt she made to destroy herself. She had been subject to periodical fits of insanity, in consequence of some catamenial derangement. She has had no return of insanity since then, and has lived a blessing to her family and society.

The *methodus medendi* in this case will not be difficult to understand, when we consider the anatomical and physiological relations of the parts immediately and mediately impressed by the cold stream of water. The pit of the stomach is one of the most sensitive portions of the body; it has a peculiar sensibility, which will not tolerate even a slight blow without suffering. The semi-lunar ganglion and great sympathetic, with its extensive and important connections, is powerfully excited, and the over-charged heart is roused to action by the direct and reflex nerve force. The effect is compounded of shock, to an extreme degree, and a permanent powerful excitation of the *vis nervosa*, causing more or less intense pain and distress, dependent on the length of time it is applied. The heart is compelled to contract and send forward its dark blood to be aerated in the lungs, and then to be distributed over the whole system, carrying life and activity to all its functions. Galvanism could do no more. Indeed, I do not believe it would do as much. Besides, a battery is not always to be had, while water is always at hand, and if applied as in this case, I believe it will be more effective in the cure of extreme cases of opium poisoning than anything else. Doubtless it would be as effectual in poisoning by other narcotics, and possibly in some cases of suspended animation.

And what would it do in the collapse of cholera? If cold water should be deemed inadmissible (as I do not think it would), why not use warm or quite hot water? If the views of an English physician, Dr. George Johnson, recently published in the *Medical News*, in regard to the pathology of the disease are correct, as I believe, I should have great confidence in the plan. It would not eliminate the poison which determines its nature, but it might rouse the sinking powers, giving time and opportunity for such treatment as would be necessary to this end.

Reports of Medical Societies.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THIRD DAY, May 3d (*Concluded*).—*Cholera and Quarantine*.—Dr. Marsden, of Quebec, according to previous appointment, made some remarks upon cholera. He commenced by stating his belief in the communicability of cholera, and the efficiency of a rigid quarantine. He had witnessed the first case that occurred on the American continent, and since that time had given much attention to the study of the disease. He was now convinced that every case of cholera could be traced to infection, and that the proper soil for the propagation of the disease was found in filth and the neglect of the ordinary sanitary precautions. He believed that all clothing from patients suffering from the disease should be destroyed, and thus be prevented from spreading the disease. He believed that isolation would prevent the appearance of the disease in any community, and related an instance in point which had made such a strong impression upon him that he was caused to think first of his plan of quarantine. It seems that a schoolmistress, in a locality where cholera threatened to make its appearance, consulted the doctor on the best course to pursue. He advised her, as soon as the disease should appear, to isolate the school from the rest of the town, by closing her gates and doors. This was done, and not a single case of cholera occurred within the walls. Dr. Marsden next gave the members a detailed account of his system of quarantine.

"1. The cholera quarantine station shall be divided into three separate and distinct sections or departments.

"2. Each of these three sections or departments shall be isolated and separated from the others by a *cordon* or portion of neutral ground of not less than one hundred feet wide.

"a. One of these sections or departments shall be appropriated to the use of the sick, and shall be the hospital department.

"b. The next or central section or department shall be devoted to the use of passengers not having had cholera, but from infected vessels.

"c. And the third or healthy section or department shall be appropriated to the use of the healthy, who have been removed from the central department, after having performed quarantine there.

"A. In the first section or department there shall be three separate and distinct hospitals, besides a convalescent shed or hospital.

"a. The one for confirmed cases of cholera to be called the *cholera hospital*.

"b. Another for cases of choleraic diarrhœa, or other premonitory symptoms of cholera, to be called the *hospital for cholérine*.

"c. The third for all other diseases not cholera or cholérine, but coming from on board infected vessels, or vessels having had cases of cholera on board, to be called the *general hospital*.

"B. The next or central section or department, shall be the primary quarantine department, and shall be appropriated to all persons who are not sick, but come from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing,

cleansing, and purifying, both of persons and personal effects. There a quarantine of four days shall be performed, at the end of which period of time all such persons as continue in sound health shall be removed to the final quarantine department, and any that may fall sick or be threatened with sickness during the four days of probation, shall, as soon as detected, be removed to the proper hospital, in the hospital department. There also the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

"C. The third, or healthy department, shall be the final department, and shall be for all cases coming from the primary quarantine department, after having been cleansed, washed and disinfected, and after having undergone the four days' quarantine; and here a further quarantine of six days shall be performed (excepting cases coming from the convalescent hospital or shed, hereinafter provided for), making in all ten days of quarantine, when all persons continuing healthy shall be discharged from quarantine, and be removed from the station. If any premonitory symptoms or other cases of sickness occur in this department during the six days of quarantine, they shall, as soon as discovered, be removed to the proper hospital, in the hospital department.

"No communication shall take place with the hospital department, except through the central or primary quarantine department, for which purpose a passage, unfrequented by the persons undergoing quarantine, shall be set apart and reserved."

Dr. Lee moved the thanks of the Association to Dr. Marsden for his interesting and practical address, and the request of the body that he furnish it with a digest of his communication.

Dr. Bond amended, that those papers accompanying the lecture be commended to the city authorities, and the authorities having such matters in charge throughout the country, for their action.

Dr. Jewell thought the matter should be further investigated, and moved its reference to the Section on Hygiene, to meet that afternoon.

The special business of the day was suspended to allow the Committee on Nominations to report.

The Officers for 1866-7.—*President*—H. F. Askew, Delaware.

Vice Presidents—W. K. Bowling, Tennessee; J. C. Hughes, Iowa; H. I. Bowditch, Massachusetts; Thos. C. Brinsmade, New York.

Permanent Secretary—William B. Atkinson, Pennsylvania.

Treasurer—Caspar Wister, Pennsylvania.

Assistant Secretary—W. W. Dawson, Cincinnati.

Committee of Arrangements—Drs. John A. Murphy, James Graham, R. R. McIlvaine, J. P. Walker, — Unsicker, William T. Brown, William B. Done, Cincinnati.

Committee on Medical Education—Drs. S. D. Gross, D. F. Condie, John Bell, H. J. Bigelow, Charles A. Pope.

Committee on Prize Essays—Drs. Francis Donelson, Maryland; Josiah Simpson, U.S.A.; C. C. Cox, Edw. Warren, W. C. Van Bibber.

Committee on Publication—Continued.

Committee on Medical Literature—Drs. A. C. Post, Jas. Anderson, H. D. Noyes, T. G. Thomas, Stephen Smith, all of New York.

Committee on American Medical Necrology—Continued, with the additions: Dr. Wood, Delaware, substituted for Dr. Couper; Jno. L.

Callender, in place of Dr. Bowling, Tenn.; Jno. Blaine, in place of Wm. Pearson, N. J. The following were added: Drs. R. D. Arnold, Georgia; Lopez, Alabama; G. Dowell, Texas.

Committee on Climatology and Epidemics—Continued, with the additions: H. Jones, in place of C. L. Allen, Vermont. The following were added to the committee: Drs. U. Harris, Georgia; G. Engelman, Missouri; R. Miller, Alabama; Fenner, Louisiana; G. Dowell, Texas.

All special committees are to be selected by the sections to which the subjects relate.

The next place of Meeting.—The place recommended for the next annual meeting of the Association is Cincinnati, Ohio, on the first Tuesday in May.

On motion of Dr. Ordway, of Boston, the report of the committee was adopted.

On motion, the Association went into a committee of the whole to discuss the resolution offered by Dr. Hibberd, having reference to extending the time for the course of study in the different medical colleges.

The whole matter was earnestly discussed by Drs. D. H. Storer, Worthington Hooker, Wright of Ohio, Davis of Ill., and others, and resulted in the passage of the following resolution, offered by the last gentleman.

“Resolved, That the Association most earnestly request the medical colleges of the country to hold a convention for thoroughly revising the whole system of medical college instruction for the purpose of establishing more uniformity of time, and a more systematic course of instruction for the whole.”

The report of the Committee of the Whole was adopted, and a committee consisting of Drs. Davis, W. Hooker, S. D. Gross, M. B. Wright, and Shattuck, was appointed.

Dr. C. C. Cox read the report “On Rank in the Army,” which was referred to the Committee on Publication.

Dr. Cox then offered the following, which was adopted:—

“Resolved, That the President of this Association bring before the notice of the Military Committees of both Houses of Congress, at as early a period as possible, the present status of medical men in the military service of the United States, and urge upon them that in the army medical bills, under consideration of Congress, the interests of the medical profession shall be so regarded that the medical staff in the service shall, numerically considered, receive the same rank and command as officers in other staffs of the army are justly entitled to.”

The committee appointed to act on the foregoing resolution were Drs. D. H. Storer, C. C. Cox, T. Antisell, W. P. Johnson, and C. L. Allen.

On motion of Dr. Cox, the following members, by invitation, were elected: W. D. Stewart, Va.; W. S. Forward, H. W. Stump, and J. L. Chaplain.

A committee was appointed on the subject of Fracture of the Spine, of which Dr. Brown-Séquard was made chairman.

On motion, Drs. A. C. Post, T. Antisell, and J. L. Atlee were added to complete the Committee on Medical Ethics.

Specialties.—On motion, the report of the Committee on Ethics, which had been laid on the table, was called up.

On motion of Dr. Toner, the resolution attached to the minority report was omitted, and the reports were both adopted.

A motion to reconsider next prevailed, and the resolution was added to the minority report and referred as before.

Dr. Homberger, of N. Y., made a request to offer a personal explanation, which, after considerable discussion, confusion and sensational speaking, was granted.

On motion of Dr. Sayre, it was agreed to hold an adjourned meeting at 5, P.M., to discuss the subject of cholera.

A communication from Dr. McGee, "On Periosteal Flap Amputations," and one from Dr. Elsberg, N. Y., "On Diagnosis of Diseases of the Larynx," received, and both referred to the Section on Surgery.

The Association then adjourned until 5, P.M.

THIRD DAY—AFTERNOON SESSION, MAY 4.—At 5, P.M., according to previous adjournment, the Association met, and after being called to order, resolved itself into a Committee of the Whole, choosing Dr. Davis as Chairman.

The subject for discussion as previously announced, was—

Cholera.—Dr. Sayre, of New York, opened the discussion. He considered that the disease could not reach here unless it was brought here; that it could not be generated here. It multiplies its ravages when filth and uncleanness abound, and is generated in a sandy, level country, beneath a temperature of 128 degrees. There the decomposing animal and vegetable substances originate this peculiar poison. He believed that it accompanied the individual, and that it did not travel by atmospheric power. He thought that the government was responsible for permitting the disease to get into the land. A rigid, proper quarantine, universally adopted by the General Government in combination with the British Provinces, would, in his opinion, prevent its admission to our continent. We had no quarantine, rightly considered. The disease in 1849 did not originate in Baxter Street, New York, but took its origin from an infected person who escaped from quarantine. The cabin passengers escape because the disease has not travelled two hundred feet nor ten feet from the steerage to the cabin. He remarked that he did not believe in mysteries, but wished to understand facts in his own way. If the valuable information that he had received from Dr. Marsden were put into practical application by the General Government, he believed that millions of money and millions of lives would be saved.

Dr. Linton protested against the doctrines advanced that morning and evening. We had medical journals through which we could discuss this subject a long time before the cholera would get here, and a long time before quarantine could prevent its getting here. "Who can believe that cholera could have been prevented from coming here in 1849? I do not believe it is any more contagious than intermittent fever. I am certain that nine tenths of the physicians of this country are convinced of this fact. I say to the citizens of New York, Baltimore, and Canada, you may have no fears of the cholera. If it comes, it will arise in your midst. Cholera is not a disease (!)" He did not believe that there was any truth in the doctrine of contagion. "Cholera breaks out in ships after they are six weeks at sea. I saw a case in St. Louis two months ago. Where did the Asiatics get it from?"

Dr. A. N. Bell, of Brooklyn, N. Y., thought the facts of Dr. Marsden inconsistent with the results of observation. Dr. M. had traced it first from a brig in Liverpool. He did not say that cholera existed in Liverpool at the time. Dr. B. believed cholera could be traced to various places other than Asia. "If cholera is contagious, it takes various roundabout ways of making short journeys. It took an exceedingly roundabout way to the principal cities of Europe. Of the present epidemic, it is said the Mecca pilgrims first had cholera. The evidences I have collected are against strict quarantine. The passengers of the *Atlanta* were detained at quarantine; no cases occurred among the well passengers after they left the ship. Of all the things likely to originate cholera, none are equal to a crowded, filthy ship. None of the passengers or things of the *Atlanta* were taken to Ward's Island Hospital. I would protest against the endorsement of any restrictions against persons as advised by Dr. Marsden. The detention of well persons can never protect us from any disease. Our protection is in our clean houses, for cholera often leaps over healthy residences. The action of the health officers at the New York quarantine has been fatal to well persons, and has tended to ward off investigation of the places where cholera originated."

Dr. John L. Atlee, of Pa., said that it was difficult to know the facts in large commercial cities. "There are a thousand avenues to such cities as New York and Boston; but in the inland districts we are more likely to reach a better observation of facts. In 1832 I was in the midst of cholera at Lancaster County Hospital, Pennsylvania. I believed that cholera and yellow fever were diseases independent of any idiomiasmatic conditions of the atmosphere. In July or August, 1854, a certain peculiar condition of the atmosphere existed. The water of the Susquehanna was very low, and the water of the basin very filthy, yet there was no cholera. There were, however, some cases of bilious and intermittent fever. One day a car of emigrants came from Philadelphia to Columbia; two or three of the passengers were ill, and were put upon the platform. Four gentlemen seeing them there at the point of death, conveyed them to a shed. In the next twenty-four or forty-eight hours not one of them was living. In two or three days the cholera prevailed in Columbia. In the Lancaster County Hospital the winds were from the south. We had no cholera. A few days after the cholera broke out in Columbia, an emigrant reached there afflicted with cholera. Shortly after, two or three cases of cholera existed. The same train conveyed the cholera to Pittsburgh. Passengers came to the vicinity of Lancaster, at a place called Paradise. Their effects were sent to Lancaster, in a high and healthy location. The relative who washed the clothes died of cholera. It is a contagious disease. Why did it not spread? Why did not smallpox spread? There is an atmospheric condition favorable to the development of the disease. The result of observations in Sweden was that it had been conveyed there by the clothes of sailors. I think Dr. Marsden is right and Dr. Sayre is right, and our friends in Philadelphia must come to the same conclusion if they wish to preserve that metropolis from the ravages of the cholera."

Dr. Sayre said the quarantine law of New York, as now enforced, is a disgrace to civilization. Dr. Carnochan, himself, and others saw

the cases on Ward's Island, and they all came to the conclusion that they were not cases of cholera.

Dr. A. N. Bell remarked that Dr. Geo. Ford insisted that the Ward's Island cases he treated were those of cholera.

Dr. Sayre then quoted from Dr. Ford's official statement in the annual report of the Commissioners of Emigration, in which he (Dr. F.) stated on page 52, that those "twenty-seven deaths were caused by *diarrhœa* and dysentery." This was the *official* statement of Dr. Ford.

Dr. Marsden said that cholera followed human travel. He adduced other facts to demonstrate its contagious character. It is infectious in person and personal effects. He urged the necessity of guarding against any communication between the infected and the well. Equanimity, cleanliness and temperance were the three great adjuncts to the quarantine.

Dr. Jewell, of Pa., said: "I have been charged with disseminating cholera. I have done all I could to prevent its entrance to Philadelphia. Cleanliness and ventilation will do much to that end. We have been engaged at that during the past winter. I do not believe in quarantining healthy people. That would be disseminating the disease by giving it to the well persons on vessels where cholera existed. We had the epidemic in the summer of 1849 in Philadelphia. It began in four different portions of the city. The first case was at Richmond, the second at Eighth and Spring Garden Streets, the third in Moyamensing. These were all in the centre of the city, except at Richmond, and remote from the Delaware. The filth produced the disease in Richmond and along the Delaware. In 1832 the first case was on the Schuylkill, in a canal boat that came down from the upland country. There had been no foreign arrival in Philadelphia. It came from a poisoned atmosphere. In 1849 no flies were living. In Wheeling the birds died. The doctrine of contagion is dangerous, and will deprive the sick of assistance. Small-pox does spread, and if we had not vaccination it would spread more than it does. Contagion and infection are distinct. Contagion is the principle communicating the disease from one person to another. It is not so with cholera. There were no cases of contagion in 1832 or 1849. No vessels arrived with cholera on board. They may have arrived after the disease appeared. I am sorry the resolution was introduced. Next year we shall be better prepared to test the value of Dr. Marsden's information. The poison of cholera will increase rapidly by contact with filth. It is only by purification of the city that cholera can be prevented."

Dr. Lee followed with some brief remarks sustaining the views of Dr. Marsden, and maintaining that it was contagious under certain circumstances. Certain neighborhoods of a very filthy character were not attacked until emigrants came there.

The Committee of the Whole rose, and the Association adjourned without further action.

Entertainment by the Corporate Authorities.—The corporate authorities of the city gave an entertainment to the members this evening, at which were present all the notabilities of the city, including the principal officers and members of the City Councils. The entertainment was prepared in the most generous and munificent manner, and reflect-

ed infinite credit on the donors. Between four and five hundred gentlemen were present. The supper was called at nine o'clock. A band of music, stationed in the gallery, initiated the occasion with an appropriate air, and at intervals in the course of the evening performed all the national hymns and songs. After discussing the substantial of the bill of fare, the customary toasts were given by Dr. J. Faris Moore, toast-master, and suitably and eloquently responded to by gentlemen of the municipal government of the city, and the officers and members of the Association, the attentions and laudations of the great assemblage being specially directed to the eloquent response made by Dr. N. Pinckney to the toast, "The Navy of the United States and its medical corps." Other toasts were equally well received, and the interest of the supper was sustained until a late hour in the evening.

FOURTH DAY, MAY 4.—The Association was called to order at the appointed time, 9, A.M., by the President, after which the minutes of the previous sessions were read by the Permanent Secretary, Dr. W. B. Atkinson, of Philadelphia.

Dr. Cox was, on motion, accredited as a delegate to the foreign societies.

Dr. Garrish, of N. Y., offered the following, which was adopted :—

"Resolved, That all the members of this Association urge upon the Legislatures of the various States the great importance of making it compulsory that all marriages, births and deaths be registered."

Medical Rank in the Navy.—The Naval Committee appointed at the last meeting of the Association having failed to report upon the subject of naval medical rank, it was moved that Surgeons William M. Wood, Ninian Pinckney and David Harlan, U.S.N., be appointed a committee to report upon the subject at the next meeting of the Association. Adopted.

Various amendments were next brought up and laid upon the table.

The reports of the various sections were then in turn called for, and adopted.

Dr. Holton, of Vt., offered the following, which was unanimously adopted :—

"Whereas, The author of the Essay, Dr. H. R. Storer, to whom the prize of \$100 from this Association was awarded in 1865, refused to receive the amount thus awarded, consequently increasing the resources of the Association to that amount; therefore

"Resolved, That the thanks of this Association are hereby tendered to Dr. H. R. Storer for this display of liberality."

The Committee on Ethics appointed to report on the resolutions of the Montgomery (Pa.) Medical Society, recommended a reference of the whole matter to the Medical Society of that State.

Dr. Holton offered the following, which was lost :

"Resolved, That at the future meetings of this Association there shall be two general sessions, one in the morning and one in the evening, unless otherwise ordered."

Dr. King, of Pittsburgh, offered the following :—

"Resolved, That this Association, approving of the system of quarantine proposed by Dr. Marsden, of Canada, as the most effectual means for preventing the introduction of cholera into this country, do earnestly recommend the propriety of its adoption at all our ports of entry, to the favorable consideration of Congress."

The house then on motion, after a little discussion, went into a Committee of the Whole, Dr. Davis being chairman.

Dr. Bell, of Brooklyn, N. Y., was granted the privilege of making a personal explanation of his statements in reference to cases of cholera on Ward's Island, and although he persisted in his original assertion, the Chair declared that the whole matter was, he presumed, well understood by the Association, there being only a different scientific opinion entertained by two different parties.

The resolution of Dr. King was then taken up, and after much discussion,

Dr. J. H. Burge, of Brooklyn, offered the following, which, after eliciting many remarks from Drs. Horton, Storer, Post, Lee, Pinckney (U.S.N.), Marsden and J. Anderson (N. Y.), was on motion laid on the table. The following is the resolution:—

“Resolved, That this Association appoint a committee of ten to memorialize Congress to the following effect: That whereas, in the opinion of many eminent physicians, the system of quarantine recommended by Dr. Marsden, of Canada, for protecting our country from Asiatic cholera, would prove effective; therefore, Resolved, that we earnestly petition the government of the United States to make an immediate and ample appropriation, and take all other necessary measures to test the utility of said system.”

The Committee of the Whole then rose and reported accordingly.

The President resumed his seat.

Dr. Cox moved that Dr. J. C. Tucker, of Nevada, be a member by invitation. Adopted.

Dr. Stokes offered the following as the report of the Section on Psychology, which was accepted and referred:—

“The Section on Psychology unite in requesting that a committee be appointed to make a report at the next annual meeting on Insanity, and ask that Drs. Isaac Ray of Providence, R. I.; Clement A. Walker, Boston, Mass.; A. B. Cabaniss, Mississippi; W. S. Chipley, Kentucky; John Fonerden, Maryland, be appointed said committee.

WM. H. STOKES, *Sec.*

CLEMENT A. WALKER, *Chairman.*

The report of the Committee of the Whole in reference to the question of quarantine was then adopted by the Association.

Death of Prof. D. L. Magugin, of Iowa.—Dr. Taylor, of Iowa, presented the following:—

“Whereas, After a long and laborious life devoted to the practice of medical art and promotion of the interests of medical science, Dr. D. L. Magugin, of Iowa, has been called to the final rest of all good men:—

“Resolved, That the Association, while deeply regretting the loss they have sustained, will ever keep alive the memory of his many virtues and professional worth, and commend the example of his untiring devotion to our common cause.

“Resolved, That a copy of these resolutions be furnished his family, with sincere condolence.”

Dr. Garrish, of New York, offered the following:—

“Resolved, That the members of this Association tender their heartfelt thanks to our professional brethren of Baltimore for the liberal, cordial and satisfactory manner in which they have entertained us.”

Dr. D. H. Storer offered his report as delegate to the last meeting of Superintendents of American Institutions for the Insane, and presented the following for adoption:—

“Resolved, That the Association recommend to the several medical and law

schools of the country, the establishment of an independent chair of Medical Jurisprudence, to be filled if possible by teachers who have studied both law and medicine; attendance upon one full course of lectures from whom shall be deemed necessary before the medical degree is conferred.

"*Resolved*, That while this Association regrets that the Association of Superintendents of American Asylums for the Insane has not yet thought fit to unite itself more closely with the representative body of American physicians, it still is of opinion that such union is for their mutual and reciprocal advantage, and that it ought to be effected without further delay."

On motion, the above was adopted.

After the transaction of business of minor importance, the Association adjourned *sine die*.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 31, 1866.

THE LATE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE recent meeting in Baltimore, although attended by a smaller number of delegates than usual, appears to have been quite up to the average in scientific interest and social enjoyment. It was, perhaps, almost too much to expect that so near to the border line of the late Confederacy there should be such a manifestation of cordial feeling towards the delegates, almost all of whom were from the North, as would naturally be looked for at a higher latitude. Nevertheless, the Association had no reason to complain of a want of a hearty welcome. The hospitalities, both private and public, of the Monumental City were such as to leave a most grateful recollection in the minds of all who had the privilege of enjoying them. Our own section was not so fully represented at the meeting as it should have been. Massachusetts sent but seventeen delegates, and of these only four were from Boston. We see no reason to suppose there was any other cause for this than the remoteness of the place of meeting, and the natural diminution, through the lapse of time, of the enthusiasm which formerly led a larger number of delegates to attend meetings held at much more distant localities. We learn that the communications read were fully equal to those usually presented, and that some were of uncommon merit; so that the next volume of the Transactions will come quite up to its predecessors in value, if it does not go beyond them.

The important subject of Specialties in Medicine came before the Association again this year, through the Committee on Medical Ethics. A majority and minority report on this subject were presented, of which the *Philadelphia Reporter* speaks as follows:—

"No true, high-minded man should, in our opinion, have objected to the majority report, which, so far from condemning the practice of specialties, rather favored it within proper professional bounds. The minority report was a sorry affair, an insult to the intelligence of the congregated wisdom of the medical profession of America; and the attempts of the ultra specialists to relieve themselves of so questionable a backing, were decided failures. Such a complete breakdown

is not often witnessed. The whole bearing of these ultra specialists was offensive, as it has always been. The right to practise specialties has never been questioned by the Association, and never will be, so long as it is done within the bounds of professional propriety. But these men have thrust themselves upon the Association, and appeared last year at Boston, in a report from the chairman of their own committee—which, confessedly, he did not submit to the other members of the committee, because he knew they would not approve it—which was arrogant and insulting in the last degree.* We think they should be satisfied with the exhibition they have already made of themselves, and spare the Association the execution of the threat that they will appear again and again, until their claims are recognized. These, so far as developed, seem to be simply that they be recognized as the leaders of the profession, and be allowed to advertise in the public newspapers. They can do both, to the extent of their ability—*outside of the Association*. That body has made no objection to the practice of specialties, and will make none, when carried on in the spirit of its Code of Ethics."

By some of the specialists above referred to, we can readily believe that these strictures are fully deserved. Those who listened to their conceited and arrogant assumptions last year in Boston will, we think, entirely agree with us in opinion. We cannot think, however, that a report from the distinguished gentleman whose signature it bore can by any possibility have merited such severe language. All who know him, know him to be actuated by the highest motives, and unselfish almost to extravagance. Whatever may be his opinions concerning the utility and perfect propriety of exclusive devotion to any single branch of practice, no one here will believe him capable of countenancing in any way such outrageous proceedings as the author of the advertisement in our extract is capable of.

Messrs. Editors:—In your JOURNAL of May 17, you say, editorially, "Dr. Snow, of Providence, maintains that there is a cholera-generating belt traversing the ocean at this time towards the west, and that the ships which recently arrived at Halifax and New York with this disease on board were infected by passing through this belt."

Permit me to say that this is a mistake, and, of course, your subsequent comments upon it are founded upon an error. I object to the word "belt," and think I have never used it in this connection. It gives an idea of extent of the cause of cholera which I do not believe exists this year. I have said that "the atmospheric cause of cholera is evidently now on the Atlantic Ocean, and *probably*" (not certainly) "approaching this country."

There is no doubt in my mind that there is a cause of cholera, commonly called atmospheric, which is sufficient to produce the disease,

* The legitimate conclusion which this gentleman has reached, may be learned by the following, cut from the columns of a daily paper of this city:—

"**☞ SURGICAL OPERATIONS ON THE EYE.**—Dr. HOMBERGER, OCULIST, editor of the American Ophthalmic Journal, informs the public that he is prepared to perform all SURGICAL OPERATIONS necessary to restore SIGHT or correct DEFORMITY. In no case will he make a charge unless perfectly SUCCESSFUL. Dr. HOMBERGER can be seen at Dr. VON MOSCHIZISER'S Office, No. 1031 WALNUT Street. Hours from 11, A.M., to 2, P.M."

in connection with local causes, *de novo*; and without any connection with other cases of the disease. I think an example of this is found in the steamships England and Virginia, as thorough investigation has failed to show any connection between the disease on those vessels and elsewhere. But, without discussing this question, permit me to say that my observations of the progress of the disease indicate a radical difference between the present and former epidemics. The disease reached France and England by a route entirely different from that of former years; though severe in some places, it was not so wide spread, and generally prevalent; it did not continue to show itself through the winter in England and France as in the winters of 1848 and 1853; as the spring opens, it has not appeared in England as in former years; and it has not appeared so generally in emigrant vessels as in those years. These facts, and others which might be given, lead me to believe that the *travelling* cause of cholera, commonly called atmospheric, is limited in extent, more than usually erratic in its progress, and *possibly* may not reach this country this year. Also, that if it does reach us, as it *probably* will, it will not be like the wide spread epidemics of 1849 and 1854; but more in the form of local endemics, and not severe except where the local causes are unusually bad, as they were on the steamships England and Virginia.

E. M. SNOW, M.D.

Providence, R. I., May 22, 1866.

In reply to the above, we would say that we used the word "belt" in the article referred to as an expressive term, intended to convey in a word the idea of limitation of the infectious district in its eastern and western boundaries, no data having been presented to define its northern and southern limits. If in using it we have given an erroneous impression of Dr. Snow's opinions, no one can regret it more than ourselves. With regard to our comments, however, we must confess we do not see that their significance is in any degree weakened, if instead of understanding him as implying the existence of a moving "belt" of infection, he believes in a moving "atmospheric cause" covering a definite area of surface.

National Quarantine.—The following concurrent resolution has been adopted by both houses of Congress:—

"Resolved, by the Senate and House of Representatives of the United States of America, in Congress assembled, That the Secretary of the Treasury be, and he hereby is authorized to make and carry into effect such orders and regulations of quarantine as in his opinion may be deemed necessary and proper, in aid of State or municipal authorities, to guard against the introduction of the cholera into the ports of the United States; and the Secretary of the Treasury is further authorized to direct the revenue officers, and officers commanding revenue cutters, to aid in the execution of such quarantine and health laws as may seem necessary."

Syphilis communicated by a Kiss.—At a recent meeting of the Chicago Medical Society a member related the history of a young woman, whose irreproachable character left no doubt of the truth of her narrative, who experienced the horrors of syphilitic inoculation, through

a kiss from the gentleman to whom she was engaged. A chancre upon the lip was the result of this caress, and subsequent medical investigation revealed the fact that the young man was at the time under treatment for syphilitic ulceration of the throat.

We have ourselves seen a similar case in which we had reason to believe syphilis was communicated in the same way.

The Record of New England in the War.—Of the loyal States, New England lost the heaviest proportion of killed and wounded, in the men it contributed to the national army, nearly 45 per 1,000; the Western States next, 37 per 1,000; the Middle States about 32 per 1,000, and the border States 25 per 1,000. Kansas heads the list of States—more than half the able-bodied men there entered the army, and sixty-one of every thousand of them were killed or died of wounds. Vermont stands next in the list—her losses in killed and those who died of wounds amounted to upwards of 58 per 1,000; Massachusetts lost nearly 48 per 1,000; New Hampshire over 47.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 26th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	36	38	74
Ave. mortality of corresponding weeks for ten years, 1855–1865	39.5	31.9	74.4
Average corrected to increased population	00	00	81.15
Death of persons above 90	0	1	1

WE must ask the indulgence of our friends, several of whose communications have been necessarily crowded out of the present number of the JOURNAL by the Report of the Proceedings of the American Medical Association.

COMMUNICATIONS RECEIVED.—Erysipelas; Cases illustrating its Natural History. By B. E. Cotting, M.D.—Case of Supposed Hydatids of the Uterus. By Daniel E. Wells, M.D.—Diarrhoea and Paralysis of the Rectum and Bladder cured by Alum. By Dr. H. Russell.—Case of Nævus, or Hypertrophy, Corrugation and Discoloration of the Skin. By G. J. Arnold, M.D.—Case of Thoracic Aneurism. By H. I. Bowditch, M.D.—Report of Transactions of the Iowa State Medical Society.—Annual Address before the Norfolk District Medical Society. By Stephen Salisbury, M.D.

BOOKS RECEIVED.—Why Not? A Book for every Woman. The Prize Essay to which the American Medical Association awarded the gold medal for 1865. By H. R. Storer, M.D. Boston: Lee & Shepard.

JOURNALS RECEIVED.—Medical Record, Nos. 5 and 6.—Medical Reporter, Nos. 5 and 6.—Medical and Surgical Reporter, Nos. 18–21.—New York Medical Journal for May.—Richmond Medical Journal for May.—Atlanta Medical Journal for May.—Detroit Review of Medicine and Pharmacy for May.—Cincinnati Journal of Medicine for May.—Cincinnati Lancet and Observer for May.—Southern Journal of Medical Sciences for May.—St. Louis Medical and Surgical Journal, for May and June.—Dental Cosmos for May.—Pacific Medical and Surgical Journal for April.—Druggists' Circular for May.—Philadelphia Univ. Journal of Medicine and Surgery for April.—Journal of Materia Medica, Pharmacy and Chemistry for April and May.—Chicago Medical Journal for May.—Chicago Medical Examiner for May.—Ophthalmic Review for April.—L'Union Médicale, Nos. 45–56.—Journal of the Society of Arts, vol. xiv., No. 700.

DEATHS IN BOSTON for the week ending Saturday noon, May 26th, 74. Males, 36—Females, 38. Accident, 1—apoplexy, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 3—cancer, 2—consumption, 19—convulsions, 1—croup, 2—debility, 1—diarrhoea, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—dysentery, 1—erysipelas, 2—typhoid fever, 1—infantile disease, 3—disease of the kidneys, 1—disease of the liver, 4—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 2—paralysis, 1—peritonitis, 1—premature birth, 1—rheumatism, 1—stone (in bladder), 1—disease of the stomach, 1—thrush, 1—unknown, 3—uræmia, 1—inflammation of the uterus, 1.

Under 5 years of age, 27—between 5 and 20 years, 9—between 20 and 40 years, 15—between 40 and 60 years, 11—above 60 years, 12. Born in the United States, 47—Ireland, 19—other places, 8.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXIV.

THURSDAY, JUNE 7, 1866.

No. 19.

ERYSIPELAS; CASES ILLUSTRATING ITS NATURAL HISTORY.

[Read before the Boston Society for Medical Improvement, May 14th, 1866, by B. E. COTTING, M.D.]

CASE I.—A. B., aged 28, unmarried. Convalescent from severe tonsillitis.

1st day.—At noon of day after nurse left, a red, erysipelatous spot appeared on left side of nose, which spread completely over the whole nose by nightfall.

2d day.—Left cheek covered with several vesications of half an inch or more in diameter. Feverish.

3d day.—Whole of left and large part of right cheek occupied by the disease. Increased fever.

4th day.—The forehead invaded. Fever quite high. Pulse 100. Great restlessness, with pains in various parts of the body and limbs.

5th day.—The whole face and ears involved; the eyes completely closed. Constitutional symptoms severe. Pulse 120.

6th day.—A portion of the scalp behind and above the left ear occupied. Vesications dried up, and the lower part of the face much improved.

7th day.—No further progress of the disease. Exfoliation general. Convalescent.

CASE II.—Y. Z., aged 33, married. Materfamilias.

1st day.—P. M. Soreness in front of right ear. Small red spot on right side of nose, just below angle of eye. Pains in bones, and general discomfort.

2d day.—Erysipelatous blush over upper part of face, and a little on forehead; demarcation well marked on upper edge, imperfectly on lower border. Restlessness, general pains. Fever. Pulse 100. Slight delirium on dozing.

3d day.—Whole face involved—disease on scalp extending to coronal suture. Left ear slightly affected. Eyes closed. Many small vesicles. General symptoms as before.

4th day.—Disease reached the occipital suture. Left ear tensely swollen. Face begins to exfoliate. No other change of importance.

5th day.—No further progress of the disease. A general subsidence of all its symptoms.

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Treatment.—No attempt was made to arrest the disease in either case by internal medicines or external applications. In the first case, an anodyne syrup of gum acacia, of the strength of poppy syrup, was given, in drachm-doses, on the evening of the third day, and on the fourth and fifth days every four hours. In the second case, five grains of Dover's powder were administered the second night. Both patients were allowed fractions of Seidlitz powders, say one-tenth to one-sixth at a time, with from four to six hours interval, as a grateful effervescent draught. In the first case a whole Seidlitz was taken in the morning of the third, fourth and fifth days. Acidulated drinks and pure water were permitted, as desired. For an external application, the first patient preferred warm water; and the second, cool milk and water. They used these whenever and as they pleased. The diet consisted of broths, gruel, milk, &c. The rest of the treatment may be included under the general head of good nursing.

These cases, though severe and confining the patients to the bed, are not presented as very extraordinary. Many such occur on all sides every season. But as instances of spontaneous progress and termination of the disease, they may be worth preserving. They have occurred, too, since the last paper the writer read to this Society, a few weeks since, and he hopes that the treatment adopted in these may receive the same sanction here as that in the former cases.* He believes also that the results compare well with those following highly extolled "remedies." During the fashion some years ago, he, in common with others, resorted to painting with iodine. He had previously used nitrate of silver, and other measures transitorily popular, but had failed to see their advantages. The iodine produced no better results; the disease invariably, in his estimation, going to its natural limits. Once, about that time, having two cases of the disease, in middle-aged members of the same family, both beginning in the nose—the one, treated with cool water only, ended on the cheek; while the other progressed until it extended over the head and down the back to the hips, unchecked by iodine, nitrate of silver, and other harsher applications. In neither of these cases was the disease apparently influenced in its natural course and event by the treatment. Ten years ago the writer reported quite a number of similar cases to this Society.† If we knew more of the natural history of this and other common diseases, we could better judge how far active interference at any time may be serviceable. Such investigations, though less obnoxious to censure than formerly, are none the less worthy the attention of our ablest men at the present time, for "it may now be affirmed that practitioners of the present day are, speaking generally, almost as uninformed in this particular as were their predecessors fifty or a hundred years back."‡

* See report of this meeting, when published in this JOURNAL.

† See Society's Records, vol. ii. pp. 284 and 328.

‡ Sir John Forbes. *Nature and Art in the Cure of Disease*, p. 5.

CASE OF NÆVUS; OR HYPERTROPHY, CORRUGATION AND DISCOLORATION OF THE SKIN.

[Read before the Norfolk District Medical Society, May 9th, 1866, by G. J. ARNOLD, M.D., of Roxbury.]

MARY B., aged 25 years, a poor, semi-demented creature, was confined with an illegitimate female child, at full time, after a normal labor. Upon the left arm of the child, involving nearly the whole limb, was a peculiar deformity, which had for the most part the appearance of an immense mole. Beginning just above the wrist, it covered the entire arm and shoulder, spreading out upon the chest in front nearly to the nipple; upon the back to the median line, and descending as far as the angle of the scapula. Its color was an intense brown, or quite black, for the most part; much lighter on the fore-arm, but there also with black spots upon the brown. Most of that on the body was shaded off with a lighter brown, varying from half an inch to two or three lines in width. Upon the top of the shoulder, the upper portion of the arm, and about the region of the spine of the scapula, the surface was deeply corrugated and fissured. The flesh was raised into ridges and prominences, and was largely nodulated. These nodules were to the feel quite firm, as if arising from thickening and obesity of the skin and the tissues just beneath it. The region of the biceps seemed almost entirely occupied by these thickened masses, which were much blacker there than on the surrounding parts. An abundant growth of hair also covered this part, quite long, silky, and perfectly white.

There was another large spot upon the back and upper part of pelvis of left side, measuring from two to two and a half inches in diameter, somewhat oval in form, not intensely dark, but with some prominence and density of tissue. Upon this spot also the hair was abundant. Still another spot, of about half an inch in diameter, occupied the right hip. There were also numerous scattered brown spots,



like common moles, measuring from two to three lines in diameter, here and there over the body and extremities; but hardly a trace upon the head. There was no appearance of ecchymosis in any part.

As the child died twenty-four hours after birth, photographs were taken, from which the above wood-cuts have been prepared, which will give a better idea of the case than a more lengthened description.

In Saint-Hilaire's "*Anomalies de l'Organization*," vol. i., p. 331, we have the following, which more nearly approaches the case above reported than any other we have been able to find. We give a translation.

"The lower part of the back, loins and thighs were covered with a blackish, thickened, rugous, and deeply furrowed skin—with an appearance of cicatrices in many places, and covered with short, coarse and pretty closely set hair. In these cases the skin presented a striking resemblance to that of a hog. Besides this large blackened surface, the limbs, the whole body, the face, and even the scalp, were thickly spattered with spots of a reddish-brown color—some round or oval, others elongated and irregularly quadrangular, and others triangular. The skin otherwise was very white."

In a note, Saint-Hilaire says, "the color affected the whole thickness of the skin itself"—as it apparently did in the case we report.

Reports of Medical Societies.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—THE MEETINGS OF THE SECTIONS.

Section on Practical Medicine and Obstetrics.

Discussion on Diphtheria.—The Section was organized by the appointment of Dr. Lake J. Tefft, of New York, Chairman, and Dr. W. B. Bibbins, of New York, Secretary.

Dr. H. D. Holton, of Putney, Vt., Chairman of the Committee on Diphtheria, as it had prevailed in the United States, made a report by reading an elaborate and interesting paper. He gave a history of the disease from its first appearance in this country, more than a century since. He insisted that diphtheria should not be confounded with follicular tonsillitis and kindred affections; in fact, nothing should be dignified with the name that did not present the characteristic exudation, with swelling of the cervical glands, &c. Neither should it be confounded with scarlatina or croup. Tables were presented showing the fatal months, the proportion of deaths at various ages of the three diseases. The disease was divided into diphtheria simplex, diphtheria maligna or gangrenosa, and tracheal diphtheria. He entered at some length into the discussion of the sequelæ, stating that they were paralysis, rheumatism and general cachexia.

After discussing the various plans of treatment, he divided it into local and general. Such mild cathartics should be used as the case seemed to require, although nothing like active purgation should be indulged in. Chlorate of potassa should be given pulverized with an equal amount of sugar, a little placed in the mouth, and allowed to run down the throat, that the local as well as the constitutional effect might be obtained.

Sulph. quiniæ and tr. ferri chloridi should be used as occasion required; also alcoholic liquors, either alone or combined with cinchona

bark; wine whey, milk punch, and beef-tea were to be used to support the patient when a nourishing diet could not be taken.

The local applications should be such as would prevent the absorption of fluid portions of the exudation. For this purpose persulphas ferri was recommended; also the following:—*R.* Tr. ferri chloridi, chlorat. potassæ, āā ʒi.; glycerin., ʒij. Miscce. Either of these to be carefully applied with a soft brush. Externally, an infusion of hops in ley of wood ashes would be the best for any hot fomentations.

The following deductions were made:—1st. That diphtheria has occurred as an epidemic from time to time since the first settlement of this country; 2d. That it is a distinct disease, on no account to be confounded with scarlatina or croup; 3. That it is particularly a disease of childhood, although it exempts no age; 4th. That it is communicable to that degree that it is the duty of every physician to separate the infected from those that are well, particularly children; 5th. That it is a disease primarily affecting the blood; consequently the treatment to be effective must be not local but general, and of such a nature as to eradicate or neutralize the poison; such local treatment should, however, be used as will prevent the absorption of fluid portions of the exudation; 6th. That when the exudation has invaded the trachea, the only hope of saving the patient is in tracheotomy.

On motion of Dr. Ellsworth Eliot, of N. Y., the report was referred to the Committee on Publication.

Dr. King wished to take exception to the remark made in this paper that when the membrane is thrown off from the trachea the patient will almost always get well. He had seen two cases, one a man and the other a child, in which the membrane had been thrown off, and both had died. He could not believe that the cast-off membrane was ever re-absorbed. He stated that he had ceased to use local applications for anything more than their antiseptic effects; and for this purpose he thought that the solution of common salt was as good as anything else.

Dr. Gallagher, of Pittsburgh, Pa., expressed himself much pleased with the report. He regretted, however, that the author had made no reference to the use of alum as a local application. He had used that remedy with the happiest effects, and had more confidence in it than in all the others. He had used also, with great satisfaction, the ordinary "hard cider," with a view of assisting the elimination of the morbid materials by the kidneys.

Dr. Worthington Hooker, of New Haven, Conn., stated that there was a great tendency in the profession to run into extremes in reference to treatment. He was not disposed to think that any disease could be successfully treated by following any one plan to the exclusion of others. The really rational plan was to follow all the indications in the particular case as they might arise. There were many marked distinctions between croup and diphtheria, but he chose only to refer to the want of that severe constitutional disturbance in the former which is never absent in the latter disease.

Dr. McCollom, of Woodstock, Vt., stated that he had seen two hundred cases of the disease in his county within the last five years. He had seen three or four cases recover after the membrane had been cast

off. He never used gargles, except as disinfectants. As regards ice, he had noticed benefit from its use in a great many cases. He had also been in the habit of allowing his patients to inhale the vapor of acetic acid, and with marked benefit.

Dr. Gross, of Pittsburgh, stated that he had had a large experience in the treatment of diphtheria in his district, and had come to the conclusion that the best means of treatment consisted, first in the use of calomel as an antiphlogistic, followed by the very free use of chlorate of potash. He had seen four or five hundred cases of the disease since he instituted this plan of treatment, but he had not met with a single fatal case. He also, in conjunction with the foregoing remedies, made use of the solution of nitrate of silver (20 grains to the ounce) as a local application, as well as saturated solutions of alum and lemon-juice on crushed ice.

Dr. Bibbins, of N. Y., stated that some time since the question was asked him by Prof. A. Clark—What was the number of cases of diphtheria which he had met with in dispensary practice? Dr. Bibbins, before he was prepared to answer such a question, wished to know from Dr. Clark what he understood to be true diphtheria—whether the essential symptoms of the disease were considered to be adenitis, false membrane, fever, and depression of the vital powers. “Of course,” replied Clark. Dr. A. Jacobi, who had studied this subject very thoroughly, has published the fact that these symptoms are always essential to the disease. A certain proportion of cases must be distributed to each individual; and such being the fact, he could not but believe that when gentlemen report such a large number of cases as occurring in their practice they do not take into account the necessary symptoms of diphtheria; that a great many report cases which they call diphtheria, which other practitioners are not willing to admit as such. He remarked that the average mortality of true cases of diphtheria among dispensary patients was thirty-three per cent., and did not suppose that under any treatment this mortality could be much decreased. Dr. A. Clark had reported the same rate of mortality. Dr. Bibbins was led to believe, from the cases which he had met with, that the tonic and supporting plan of treatment was the only reliable one.

Dr. Shumway, of N. Y., had used with great benefit, as local applications, the nitrate of silver stick, the chlorate of potash and the chlorate of ammonia. He apprehended that the great difficulty with many patients that were convalescent was not that they did not get medicine enough, but that there was paralysis of the throat, which prevented them from swallowing them. In those cases he had used nutritive injections into the stomach with very good results.

Dr. Davis, of Ill., spoke in this connection of blood-poisoning in many diseases, diphtheria among the rest. He thought there was yet a great deal to be learned with reference to the true pathology of these so-called blood diseases. The query had arisen with him whether diphtheria really depended primarily upon a poison in the blood, or whether the altered condition of the blood itself, instead of being primary, was itself a secondary consequence of a prior change in the properties of the organized tissues of the human body. He discussed this question at considerable length, showing the probability that there might be such a fundamental error in nutrition, as that assimilation

or disassimilation was so interfered with that the blood was poisoned in consequence.

Dr. Hewitt remarked that he had great faith in the solvent power of both alum and chlorate of potash on the diphtheritic membrane. He had taken pieces of the membrane that had been separated, and had dissolved them entirely in the solution of these salts. His treatment was to take a glass tube, pass it back into the fauces, and inject one or the other of the solutions directly against the affected parts.

Dr. McIntyre, of Concord, N. H., was of the opinion that if there was any error in nutrition, it was secondary to the formation of the membrane in the throat, which by obstruction to the respiration interfered with the proper oxidation of the blood. This he considered to be the starting-point of the constitutional trouble. For the purpose of aiding the system in the elimination of the poison in the later stages of the disease he had used colchicum seed, guaiac and nitrate of potash, with much satisfaction.

Dr. Taylor, of Iowa, did not think there was any benefit to be attained by suggesting this and that remedy for a disease which had existed in every section of the country; for different remedies must be used in different localities, and he thought the best guide for any general plan of treatment was to be found in a proper, thorough, and enlightened view of the pathology of the disease.

SECOND SESSION.—Dr. Lake J. Telfit in the chair.

The second meeting of the Section was held at the Dental College, corner of Hanover and Lombard Streets, on Wednesday, May 2d, 1866, at 3.45, P.M.

Dr. James J. Levick, of Philadelphia, read the "Report of the Special Committee on Spotted Fever."

On motion of Dr. Henry D. Holton, of Putney, Vt., the report was referred to the Committee on Publication, with a recommendation for its publication in the Transactions of the Association.

Inhalation of Nebulized Fluids.—Dr. J. Solis Cohen, of Philadelphia, read a paper entitled "Remarks on the Inhalation of Nebulized Liquids, and their Topical Application to Inflamed and Ulcerated Surfaces."

The reader stated that his design was not so much to present a review of the knowledge of the profession on these topics, or to bring forward any of his peculiar views, as to give a *résumé* of the results thus far obtained from recent experience, with a view of eliciting upon a subsequent occasion a valuable paper on the whole subject of the Therapeutics of Inhalation, which should embody the experience of a number of observers, and furnish the profession with authoritative data for their general investigation, inasmuch as the literature on this subject, especially in this country, was very meagre and unsatisfactory.

The paper stated that the idea of treating diseases of the respiratory organs by inhalation, which should bring remedies directly in contact with diseased surfaces, was as old as the healing art itself; for what was more natural than to imitate the entrance of the vivifying breath of life in its access to the economy? The records of classic Greece and Rome show that this principle was taken advantage of in the inhalation of volatile substances, and in the residence of patients upon the sea-shore, and in the neighborhood of volcanoes. This

method of treatment fell into disuse, and was again resorted to many times, and had fallen into permanent neglect for a long period, until the discoveries of oxygen leading to further chemical research, and the promulgation of the exhilarating effects following inhalation of the nitrous oxide gas, again directed attention to the subject of inhalation as a remedial agent. Then the ammoniacal exhalations from cattle yards, stables, &c., became largely employed in many affections, until too extended empirical application to all the ills of life meeting with failure, led the whole system into disuse, even for these affections for which it was originally intended. The discoveries of the properties of chlorine, iodine, &c., of the effects of the smoking of opium among the Chinese, led to the employment of similar substances: and the whole series of narcotics, resins, and all substances producing vapor, became employed in this manner.

Observations of the diseases affecting workers in minerals, metals, &c., and the post-mortem revelations of the scapel, proving the entrance of particles of dust into the lungs, led to the therapeutic employment of powders by inhalation.

After some other general remarks of a similar nature, the paper went on to relate that within a few years a new method of presenting *liquid substances* for inhalation *as such*, had become much employed in Europe, and seemed to promise an extensive field of success in the treatment of the whole class of pectoral troubles.

Every one is familiar with the effect of a stream of water directed upon the side of a house, how a large portion of the volume of water is directed back in a shower of small streams, or coarse spray. In certain bathing establishments in Germany, many liquid applications are made on this principle to the surface of the body in the treatment of affections of special organs, and of the general system likewise. Streams of the medicated liquid are forced against metallic plates on the walls of the bathing apartments, and fall over the desired surfaces in this shower or coarse spray.

It having been noticed that amelioration of concomitant chest affections seemed to follow this exposure for other purposes, patients were sent to these establishments to respire the air thus impregnated. The beneficial results obtained at the Inhalatorium of Dr. Auphan, of Eaux-les-Bains, established in 1849, led to similar establishments elsewhere, until finally, Sales-Girons, who, in connection with Flubé, had, in 1856, erected an inhalatorium at Pierre-fonds, conceived the idea of constructing on this principle a portable apparatus which could be employed by patients at their residences, and thus admit of much wider application. Sales-Girons exhibited an instrument of this kind to the Academy in 1858. His apparatus consisted of a condensing syringe, which forced a very fine stream of liquid against a convex metallic button, converting it in deflection into a very finely divided spray, having much the appearance of a dense fog or mist, the separate particles of which, suspended as they are for a time in the atmosphere, playing around much like the dust observed in a sunbeam, can be drawn into the lungs by inspiration.

The paper referred to several of these apparatus, especially the modification of the tubes of Bergsen, and the employment of steam by Siegle, in lieu of the compressed air, and stated that experiments upon living animals proved the entrance of these particles into the

air-cells; though for various reasons, the spray striking against many surfaces during its ingress, its dissipation into a much larger volume than could be received into the mouth, &c., but a small quantity of the liquid thus nebulized (the writer thought not more than twelve per cent.) could reach the smaller bronchial ramifications.

The writer thought that the application in this manner of liquid substances of known strength directly to the diseased surfaces would prove more prompt in effect, whether for good or ill, than when the entire current of the circulation became the vehicle of communication, perhaps affecting the general system when not desirable. The mucous membrane of the lungs is quick to absorb, secretes no chemical product to modify chemical medicines, and has no temporary ingesta to interfere with the direct action of remedial agents applied to it.

Although the results thus far obtained are far from being positive, and many of them are unsatisfactory and negative, still they are such as to justify careful research into this new method of medication.

Some conclusions were then given as the results of recorded experience; the results of the writer's personal experience and observations, and the results of extensive experiments, carefully conducted by Dr. J. M. Da Costa, at the Pennsylvania Hospital, as well as those obtained by the latter named gentleman in his private practice.

A few remarks followed as to the manner of preparing medicines for employment in this way, and their application when different parts of the air-passages were to be medicated.

Allusion was made to the employment of this system of nebulization for local applications to inflamed and ulcerated surfaces on the exterior of the body, and a certain distance within the various cavities, and an instrument devised for this purpose was exhibited, to demonstrate that in a second or two a layer of a caustic or other solution, many times more delicate than any film which could be deposited by the slightest touch of a hair pencil, could be directed upon an ulcerated or inflamed surface, whether of large or small surface. A continuous application of course can be kept up when desired, and in this connection the method was recommended for the production of local anæsthesia for minor operations in surgery—a subject at present exciting a good deal of attention, and brought to the notice of the profession by Dr. B. W. Richardson, of London.

On motion, the paper was referred to the Committee on Publication, for publication in the Transactions of the year; but at the request of the writer the motion was modified to call for the appointment of a special committee to report on the "Therapeutics of Inhalation" at the next annual meeting of the Association.

On motion, the paper was received.

Dr. J. E. Clawson, of Delaware, moved that the Section appoint a Special Committee on the Therapeutics of Inhalation, to consist of three members, and that the paper of Dr. J. S. Cohen, just read, be referred to that Committee. Carried.

The Chairman appointed as such Committee:

Drs. J. Solis Cohen, Philadelphia; Dr. J. M. Da Costa, Philadelphia; Dr. L. Elsberg, New York.

Adjourned.

THIRD SESSION.—The Section met at Concordia Hall, on Thursday, May 3, 1866, at 1.45, P.M.

In the absence of the Chairman, Dr. Ellsworth Eliot, of New York, was elected Chairman, *pro tem*.

The minutes of the last meeting having been read and approved, the Section adjourned, *sine die*.

Section on Medical Jurisprudence, Physiology and Hygiene.

FIRST SESSION, MAY 1, 1866.—The session was organized at Concordia Hall, 3, P.M., May 1, by electing Dr. Wilson Jewell, of Pennsylvania, Chairman; and Dr. A. N. Bell, of New York, Secretary.

Report on Disinfectants.—The first paper called up was the Report on Disinfectants, which was read by Dr. E. M. Hunt, of New Jersey, chairman of the committee. On motion to refer it to the Committee on Publication, it was brought under discussion by Dr. T. Antisell, who, though he considered the report in many respects an able one, did not regard it sufficiently elaborate, particularly in the special utility of dry heat for the destruction of fungous organisms resulting from the exposed excreta of persons sick of the cholera. While he regarded the most scrupulous cleanliness and care in the removal as speedily as possible, of all accumulations of whatever kind from such persons; yet he thought that here disinfectants had their chief application, and that if means could be devised for the thorough application of heat to all such accumulations, the poisonous quality for the diffusion of the epidemic would be destroyed. Of ozone and other disinfectants dwelt upon by the committee, he thought them of much less importance; and that they occupied too large a space in the report, to the exclusion of that which he considered much more useful.

Drs. Green, C. A. Lee, E. R. Squibb, Jas. Hibberd, took issue with Dr. Antisell as to the province of the committee in the report, regarding it in the main as sufficiently elaborate, and more strictly in accordance with what reports for the Transactions of the Association should be, than if it went into collateral subjects.

Drs. Hunt and Bell defended the report on the ground that it was necessarily a chief effort on the part of the committee to present a *résumé* of such facts as had from time to time been brought to notice in the history of disinfectants; and that it would not only be out of the province of the committee, but quite impossible, to report upon the special indications for the application of disinfectants to the various supposed causes of disease, such as the one presented by Dr. Antisell.

The motion to refer the paper to the Committee on Publication was then put, and the paper was so referred.

On motion, it was voted that Dr. Antisell be requested to prepare a paper for the next session of the Association, *On the Causes of Epidemics*.

Influence of Electricity on Epidemics.—The next paper taken up was the report of a special committee on the Influence of Electricity on Epidemics, by Dr. Squire Littell, of Philadelphia.

This report was presented to the Section on Hygiene at the last session of the Association, but owing to its length was not all read. It was deferred for the time, and owing to the supposed absence of the author from the country, the paper was omitted from the Transactions. Members of the Section present who had carefully examined the paper, spoke of it in high terms, and as being well worthy of pub-

lication in the Transactions. But as it was a long paper, and had already been examined, and in part at least discussed, they did not deem it worth while to again occupy the attention of the Section with its consideration.

On motion, it was referred to the Committee on Publication. The Section then adjourned.

SECOND SESSION, MAY 2.—*The Use of Permanganate of Potash*.—Dr. B. F. Craig read a paper on the use of potash for the purification of water, especially during the prevalence of epidemic cholera.

The points of the paper were presented by Drs. C. A. Lee and E. R. Squibb, namely, that the disinfecting agent in the use of the permanganate of potash and allied substances was ozone. According to the remarks of Dr. Squibb, the power of disinfecting substances generally, excepting some, such as charcoal, which are absorbents, can be measured in a certain degree by the facility with which they give out or abstract oxygen. The paper under discussion was defective, in that the author assumed that the organic matter present in nature is the cause of cholera; and also that he took no note of the deposit of carbonate of potassa that would take place, even to a mischievous degree, in the use of the remedy. Yet, upon the whole, the paper should be regarded as a contribution to the important subject of disinfectants. It was, on motion, voted to commend it to the Committee on Publication.

Compulsory Vaccination.—Compulsory vaccination was presented as a subject of discussion by Dr. A. N. Bell, Chairman of the Committee on that subject. While he regarded the literature of *vaccination for the profession* exhausted, he considered the field still large for the purpose of the Committee, namely, the diffusion of information among the people; and his chief object in presenting the subject in this manner, instead of by formal report, was to elicit the expression of the Section as to the best means of diffusing information. In the Southern States, especially, a new field was now open for reaching a large number of persons requiring vaccination and revaccination, in order to put a stop to the ravages of smallpox, and he hoped that some of the gentlemen present would be able to assist the Committee in devising means for such a purpose.

Dr. Wm. M. Charters, of Georgia, described the ravages of smallpox among the negroes at Savannah on the arrival of Gen. Sherman's army, and attributed it, not to any want of a correct appreciation of the utility of vaccination, but to the *imperfect manner* in which vaccination was performed.

It was the practice, to a great extent, to commit this subject to unprofessional persons. In the Southern States, especially, masters and overseers thought themselves equally competent with physicians for so simple an operation. But the result justified the conclusion that the disease they communicated was frequently a *vaccinoid* sore only, and not a vaccine vesicle. The operation was performed more with reference to making a *sore* than anything else, and that was regarded as the prophylactic, but exposure proved the contrary. In other cases, however, and these were by no means insignificant, vaccination had been well performed and it had taken perfectly, but the susceptibility to it and to smallpox not having been exhausted, the individual was still liable. He therefore advocated exhaustive vaccination to begin

with ; let the operation be repeated until it ceases to produce an impression, and he believed susceptibility to smallpox would be destroyed for the whole lifetime of the individual. To accomplish this, he believed in the necessity of compulsory laws, requiring every person to be thoroughly vaccinated, under such penalties as would insure compliance. Drs. Lee and Hibberd referred to the ineffectual State laws on the subject, and also to the no less ineffectual laws of England, and thought that something more was required.

Dr. Nebinger did not believe that such laws could ever be made effectual in this country, and thought that the work of the Committee to diffuse information—which, so far as vaccination without danger, or a belief in its prophylactic powers was concerned, was effectual—only now need be pressed to the equal necessity of *re-vaccination*. On the necessity of *re-vaccination*, he knew there were yet many physicians and a multitude of other people needing information. He cited several cases in illustration. He hoped that the Committee would be continued, and that every member of the Section would do his utmost to press upon the attention of the profession and the public the facts that had already been presented in the last year's report.

Dr. Toner expected much good to result from registration, a subject that was now attracting attention ; and when it was so far advanced that correct information could be gained as to who was and who was not vaccinated, he thought that one great obstacle would be removed—the necessity of universal vaccination would be so much more apparent that the purpose of the committee would be much facilitated.

On motion, it was voted that the Section recommend that the Committee be continued.

Dr. C. A. Lee introduced *leakage of gas pipes* as a subject well worthy of the consideration of the Section and of the Association.

On motion, it was voted that Dr. J. C. Draper, of New York, be requested to prepare a report for the next session of the Association on the leakage of gas pipes.

THIRD SESSION, MAY 3.—*On Alcohol and its Relations to Man*.—This paper, by Dr. Gerard F. Morgan, of Maryland, was presented and in part read by Dr. Dunbar, member of the Special Committee with Dr. Morgan to present a report upon this subject.

After some discussion it was, on motion, voted, that the report presented by the Committee on the subject be referred to a new committee to report at the next session.

Dr. Dunbar, of Maryland, Dr. T. Antisell, D. C., and Dr. N. S. Davis, Ill., were nominated, and the request referred to the Association. Adjourned *sine die*.

Section on Surgery.

FIRST SESSION, MAY 1.—Dr. A. C. Post in the Chair ; Dr. J. H. Burge, Secretary.

The meeting was held at the Dental College, at 3 o'clock, P.M. There being no report of the papers which had been referred to this Section, a motion was made to adjourn, to meet again in the same place at 3 o'clock, P.M., on Wednesday, 2d inst. Carried.

SECOND SESSION, MAY 2.—The Surgical Section met at 3 o'clock, pursuant to adjournment. Dr. Post in the Chair.

Dr. J. S. Cohen, of Philadelphia, offered a paper by Dr. J. M. Bois-

not, of the same city, on Fracture of the Patella, and exhibited an apparatus for its treatment. On motion, the paper was referred to the Committee on Publication.

Dr. J. S. Cohen read a paper on Vocal Paralysis, with Aphonia, cured by the application of stimuli and by the use of what he called vocal gymnastics. The paper was referred to the Committee on Publication.

Dr. J. J. Woodward, U.S.A., chairman of the Committee on the Causes and Pathology of Pyæmia, presented a very elaborate paper. The Section listened for nearly an hour, when several members expressed their great interest in the communication, but owing to the shortness of the session it was voted to refer it at once to the Committee on Publication, with the recommendation to publish it in full.

Dr. Woodward also presented some very beautiful photographs, illustrative of the success attained in micro-photography. In these specimens microscopes of very differing powers had been used.

Dr. A. C. Post, of New York, exhibited an original instrument for the bilateral operation of lithotomy.

Dr. J. C. Hutchison, of Brooklyn, said he had used the instrument with satisfaction, and therefore moved that Dr. Post be requested to furnish a description for publication in the Transactions of this Association. Seconded and carried.

Dr. Post presented, also, a new instrument for making applications to the os uteri. It consists of a straight and rather slender pair of forceps, made short for convenience of carrying, but when in use elongated by a handle screwed thereupon. By a slide upon the forceps the blades are approximated and made to close firmly upon any object. The Doctor observed that it might be used either as a forceps to hold any substance which the operator might wish to apply, or to remove extraneous bodies from the vagina.

Dr. Post also presented a small instrument to facilitate the introduction of insect pins for sutures; some of these pins being so delicate that without such guide they bend and become useless. The instrument consists of a sharp-pointed, slightly curved, grooved needle—the groove being in its long axis. In using, the needle is to be introduced to the very position which the pin is intended to occupy. The pin is then guided by the groove, carried to its place, and held there while the needle is withdrawn in the backward direction.

Dr. H. R. Storer, of Boston, presented an instrument which he called the "Clamp Shield," designed by him to lessen the dangers of extirpation of the uterus by abdominal section, and read a paper on the subject, which was referred to the Committee on Publication.

Four Operations for Lithotomy on the same Patient.—Dr. J. C. Hughes, of Iowa, reported a case of vesical calculi, in which he had four times performed the bilateral section in the same patient. When the second operation became necessary, lithotripsy was attempted, but failed. At the time of the third operation the patient was much emaciated and very feeble, yet he recovered nicely. In less than another year the fourth operation was demanded, when twelve calculi were removed; drawings of these accompanying the paper. Dr. Hughes spoke highly of the bilateral as compared with the lateral operation, having performed it twenty-one times with the loss of but a single patient.

The paper was referred to the Committee on Publication.

Dr. Hughes also spoke of a new method of operating upon limbs which were both curved and shortened. He said Barton's mode was to saw out the V-shaped portion of the bone on its convexity; but as Dr. Hughes wished both to straighten and lengthen the limb, he cut down on the convex side, and, passing a chain-saw around the bone, made a partial section on the side of its concavity, and then used such manual force as was necessary to straighten it—thus leaving a chasm to be filled, instead of losing an additional inch.

It was moved by Dr. H. R. Storer, of Mass., that Dr. Hughes be requested to write a description of the operation for insertion in the Transactions of this Association.

On motion, the Section adjourned, to meet at 3 o'clock, P.M., next day, May 3d, in the same place.

THIRD SESSION, MAY 3d.—The Section met at the appointed hour. Dr. Post in the chair.

Dr. Lewis A. Sayre, of New York, moved that Dr. Post be requested to furnish for the Transactions of the Association a description of his grooved needle, previously exhibited. Dr. Sayre thought the thanks of the profession were due to Dr. Post for this unpretending but eminently useful instrument. Carried.

Dr. Sayre then read a paper on Luxation of the Femur into the Ischiatic Notch, of nine months' standing, reduced by manipulation. Referred to the Committee on Publication.

Dr. Dewitt C. Enos, of Brooklyn, read a paper on the Intra-oral Method of Operating for removal of Lower Jaw. Referred to the Committee on Publication.

Dr. George M. McGill, U.S.A., presented a paper advocating the adoption of a periosteum flap in all amputations in the continuity—including a report of five cases. The Doctor exhibited casts of two of the stumps after these operations, which were beautifully oval. Paper referred to the Committee on Publication.

Dr. Enos thought the suggestion of Dr. McGill a good one, but in one case in which he had made a periosteal flap in his own practice, there had been such a reproduction of bone as to necessitate a second operation.

Dr. Louis Elsberg, of New York, read a paper on the Means of Diagnosis at present available in Diseases of the Larynx, with full directions for the use of the Laryngoscope. On motion, referred to the Committee on Publication.

Dr. B. J. Raphael, of New York, stated that Dr. Montrose A. Palen, of St. Louis, made a partial report in 1860, on the Various Surgical Operations for the Relief of Defective Vision, and moved that the committee be continued. Carried. On motion of Dr. Raphael, Dr. E. Krackowizer, of New York, and Dr. J. S. Cohen, of Philadelphia, were appointed a Committee to report on the subject of Local Anæsthesia. Dr. Post made some remarks on the subject of partial anæsthesia and the coöperation of the intelligent patient with the practitioner.

On motion of Dr. B. J. Raphael, Dr. Henry D. Noyes, of New York, was appointed a committee to report on the influence upon vision of the abnormal conditions of the muscular apparatus of the eye.

On motion of Dr. E. Krackowizer, of New York, Dr. Raphael was appointed a committee to report on the comparative merits of the different operations for the extraction of vesicular calculi.

Whereupon the Section adjourned *sine die*.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, JUNE 7, 1836.

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.

THE recent anniversary of our State Society will undoubtedly be regarded by all who participated in it as the pleasantest in their recollection, and the large attendance and interest manifested in the proceedings on both days, notwithstanding the unfavorable weather, stamped the new order of arrangements as a complete success. The protracted session of the Legislature deprived the Society of the use of the Hall of Representatives, so that the meeting was held in the lecture room of the Lowell Institute, which was kindly placed at its disposal by the Curator, Dr. Cotting.

FIRST DAY.—The number in attendance at the hospitals on Tuesday morning was large, and several interesting operations were performed by the surgeons of both institutions. The Society was called to order at 12, M., by the President, Dr. A. A. Gould, and the Chairman of the Committee on the Order of Business, Dr. John Homans, explained the purpose of the extraordinary meeting. Portions of papers on the following subjects were then read:—On the Vegetable Parasites of the Human Skin, by James C. White, M.D.; Observations on the Physiology of the Larynx, by Henry K. Oliver, M.D.; Autumnal Catarrh, by Morrill Wyman, M.D.; Luxations of the Shoulder-joint, by Richard M. Hodges, M.D.; Observations on Cholera, by Walter Channing, M.D.; The Policy or Impolicy of removing Leucocythemic Glandular Tumors, by David W. Cheever, M.D. Dr. Henry J. Bigelow exhibited the new agent for local anæsthesia, Rhigolene, introduced by him to the profession in this JOURNAL a few weeks ago, and demonstrated the ready method of its application. At 2 o'clock, the meeting adjourned.

Afternoon Session.—At 4 o'clock the Society re-assembled, and papers were read by J. Mason Warren, M.D., on Cystic Tumors of the Jaw, and by H. W. Williams, M.D., on Some Conservative Measures required in Certain Diseases of the Eye. Dr. H. R. Storer exhibited and read an account of the use of a new clamp to be used in the removal of ovarian and uterine tumors in place of the ecraseur. At 6 o'clock the meeting adjourned. The papers presented during the day were generally of great interest, although but a small part of each was read, on account of the limited time assigned to each reader. Another year we trust the arrangements may be such as to allow more time to this important part of the proceedings, as well as opportunity for discussion.

WEDNESDAY, SECOND DAY.—*Annual Business Meeting.*—The President called the meeting to order at 10, A.M. After the reading of the records of the last annual meeting, and of the meetings held yesterday, by the Recording Secretary, Dr. D. W. Cheever, the annual report of Dr. Francis Minot, the Treasurer, was read. This report states that the yearly receipts have been \$6098.97; expenditures,

\$4252.21; balance on hand, \$1846.76, of which \$867.42 is available for the general purposes of the Society. The property of the Society amounts to \$30,420.17. In his report the Treasurer recommends that the annual assessment be increased to meet the growing expenses of the Society, and for publishing the papers read at the annual meetings.

Dr. R. M. Hodges, the Recording Secretary, next submitted his report for the year. This gave the officers elected at the meeting of the Councillors, held the evening previous, for the ensuing year, as follows:—*President*, Dr. Henry C. Perkins, of Newburyport; *Vice President*, Dr. Foster Hooper, of Fall River; *Corresponding Secretary*, Dr. C. D. Homans, of Boston; *Recording Secretary*, Dr. D. W. Cheever, of Boston; *Treasurer*, Dr. Francis Minot, of Boston; *Librarian*, Dr. J. C. White, of Boston; *Orator*, Dr. H. P. Wakefield, of South Reading; *Anniversary Chairman*, Dr. H. W. Williams, of Boston.

The Secretary stated that at this Councillors' meeting it was voted to hold the next annual meeting in this city on the first Wednesday in June, instead of the last Wednesday in May. The assessment was increased, to take effect after the beginning of 1867, to five dollars; and the cost of diplomas from one to five dollars. It was reported, at the Councillors' meeting, that no essay had been presented for the \$100 prize which was offered last year. The offer has been renewed; it is for the best essay on "Expectant Medicine: the extent to which it is practised at the present day, and the modes by which it is counterfeited."

Dr. Luther Parks, Jr., of Boston, Chairman of the Committee to whom was referred the subject of Cerebro-Spinal Meningitis, read an abstract of a lengthy and valuable report on that subject. A discussion on the paper was participated in by Drs. Hartwell, Wilcox and Alden.

Dr. E. Cutter, of Woburn, exhibited a model of a fracture bed, and also an atomizer of liquids.

Dr. Chapin, of Winchester, read a paper on the Medicinal Qualities of the Common Mullein.

Dr. H. R. Storer, of Boston, read a paper on "The Abetment of Criminal Abortion by Medical Men."

At one o'clock, the annual oration was delivered by Dr. George C. Shattuck, on "Professional Relations," for a brief abstract of which, and the proceedings at the dinner, we are indebted to the report of the *Daily Advertiser*.

Dr. Shattuck, after speaking of the success and importance of the Society, proceeded to enlarge upon the work and the trials of the profession. One of their greatest trials, he said, was that they were obliged to have intercourse with many who from ignorance have no confidence in the profession, and ridicule and insult them. We have, he continued, within our midst, societies of individuals banded together to interfere with the work of the profession, and to set up the idea of all working upon their own ideas. This state of affairs should lead medical men to look into their own selves, and see wherein they are deficient, and what is wanting to counteract this work. Such Societies as this are valuable in this respect to an extensive degree. The speaker referred to and read the act of Parliament providing that no person shall practise in London the art of healing except on strict

conditions, and recognizing the high position which the medical profession held; and then argued that the medical man especially needed to be continually seeking light and strength from above, and that theology should not be disregarded. Touching on quackery he said that the medical societies had not the authority to punish this rascality, and therefore the profession should continue to improve themselves and to so work and study as to keep out from their midst those ignorant persons who profess, but do great injury. He acknowledged that the science was not perfect, but this should not be allowed as an argument against it; a harmonious concentration of action and effect should be made to perfect the science and increase the skill upon which depends the alleviation of suffering humanity. We must look out for moral improvement in order that we may succeed. The orator considered that many of the abortive attempts to heal and cure were attributed to selfishness. Faith and confidence in ourselves, he said, are essential elements in order that we may inspire a reciprocal response from our patients. Education is an all-important consideration to the practitioner. We must all deplore the ignorance and want of culture of those who are just entering the profession. We want and should have properly endowed medical schools. The Legislature has never given money or any encouragement to such institutions, while it has but recently given aid to a female medical college; therefore we can only depend upon private generosity. The three years' course which is now the term for students, is not long enough, and thorough enough. The science of medicine is never completely learned; the student must ever study, must ever experiment and be open to suggestions and information. In conclusion the orator eulogized those members of the Society who have, during the last year, passed to "that bourne whence no traveller returns." It has been stated, he said, that in the medical profession the average of life is small, yet of the nineteen who have gone to their rest and their account, one attained the age of eighty-one, and one of eighty-five; all were held in high esteem by their fellows, and their good qualities and faithful services will ever be remembered.

The thanks of the Society were voted for this able discourse. Thanks were also returned to Dr. Gould, the retiring President, for his long and faithful services, and to Dr. Cotting for the use of the hall. Dr. Gould introduced the President elect, Dr. Henry C. Perkins, of Newburyport, who made a few appropriate remarks.

The Anniversary Dinner.—Immediately upon the adjournment of the meeting in the Lowell Institute the Society proceeded in a body to the Music Hall, there to partake of the anniversary dinner. On the floor and on the platform the tables were placed at which the company, to the number of about six hundred, took seats. After a little organ music, and a prayer by Bishop Eastburn, the Anniversary Chairman, Dr. William E. Townsend, invited the gentlemen of the Society to proceed to a discussion of the business now before them.

After dinner, Dr. Townsend called the company to order and made a brief address of welcome, speaking substantially as follows:—

Gentlemen,—It is my privilege and my pleasure to welcome you here on this occasion, when once more surrounded by peace and prosperity. The din of war's horrid alarms silenced, we meet in social intercourse, to exchange fraternal greetings and to renew the friend-

ships once so dear to us. It is well, occasionally, to lay aside the toils, the cares and the anxieties of the profession, which weigh so heavily on every thoughtful man, and to feel that here, at least, we are free from responsibility and at liberty to enjoy a day of rest. It has been the aim of the Committee of Arrangements so to dispose of the time allotted to this our annual gathering as to afford to every brother some opportunity of improving himself, and, by friendly meeting in this place, away from the noise and confusion by which we have usually been surrounded, to appreciate the ample dinner they have provided, and to enjoy in quiet the feast of reason yet in store. That the arrangements made have met with your approbation, and that you may all, for many years, continue to meet and enjoy yourselves with pleasure and benefit, is my most earnest wish. Although by the rules of the Society we are not allowed to pledge each other in anything but a temperance pledge, yet we are permitted dry toasts and to hope for exhilaration of mind from the responses they receive. I give you, therefore—

The Massachusetts Medical Society—Long may it flourish, and like Aaron's rod swallow up all rivals.

Dr. Gould, the retiring President, was called upon to respond. He said:—The sentiment has a double aspect. It means, undoubtedly, that we shall appropriate to ourselves everything from every source which shall advance scientific medicine, and for this our Society has successfully labored. It has prescribed and enforced a thorough medical education. It has selected and put into the hands of every member the best publications of the day. It has elicited the practical conclusions and scientific researches of its Fellows and given them publicity. By its discipline and social gatherings it has promoted honorable intercourse and good fellowship. It has given the less favored by position and education opportunity to profit by the presence and skill of those more favored. It has subjected to scrutiny and adopted whatever has commended itself, from whatever source, whether from solid or fluid, from heat or cold, from mineral or vegetable, the scalpel, the crucible, the microscope and other scientific appliances. It has thus cultivated the growth of the sturdy old tree of true medical science, rooted in the fertile soil of observation—the growth of many, many centuries, yet still sound at the core, still towering higher and spreading wider, enlarged from time to time by collateral branches, each one contributing to the efficiency of the parent trunk. [Applause.] The second aspect of the sentiment is that there are some things not to be welcomed or entertained by us. It is not every theory or every organization which we would wish to swallow down; and while accepting that aspect of the toast which looks to the absorption by our rod, of the good and true, in view of the other aspect I would rather say:—

The Monarch Medical Society—Like Jonah's whale, may it reject every obnoxious intrusion. [Applause and laughter.]

The next speaker which the president introduced was the orator of the day, Dr. Shattuck, of this city. He made a very short but pleasant speech, in which he took occasion to speak in congratulatory terms of the present condition of the Society and its value; and further to highly compliment the "big organ."

Bishop Eastburn was called up by the following toast:

The Clergy—The ministers of him whom the Divine Psalmist says "healeth those that are broken in heart and giveth medicine to heal their sickness."

Bishop Eastburn spoke of the influence of the family physician, and the quiet and calm which his presence in the sick room invariably produced. He also expressed his gratification that these medical societies were in existence, on account of the information which they brought before the young members of the profession. In conclusion he eulogized the well known fathers of the profession with whom he had come in contact.

Dr. Jacob Bigelow being called up, made a very few happy remarks, which elicited much applause.

The president next read a toast complimentary to the Commonwealth of Massachusetts and its Governor, and then read the following letter:—

BOSTON, MAY 30, 1866.

To Wm. E. Townsend, M.D., Chairman of the Anniversary Committee of the Massachusetts Medical Society.

SIR,—His Excellency the Governor of the Commonwealth directs me to convey, through you, to the Officers and Fellows of the Massachusetts Medical Society, his sincere regrets that he is unable to be present at the annual dinner this day at the Music Hall. Pressing official duties consequent upon the adjournment of the Legislature demand his constant attendance at the Executive Chambers. He further directs me to express to you his appreciation of the courteous consideration of the Society in inviting him, and the expression of his great respect for the venerable and honored Society which has for so many years been the recognized exponent of the medical sentiment of Massachusetts.

I am Sir, very respectfully,

WILLIAM J. DALE,

Surgeon-General of the Commonwealth.

The reading of this letter was followed by Dr. Storer, President of the American Medical Association, in answer to a sentiment complimentary to that society; Dr. Henry C. Perkins, of Newburyport, the newly elected President of the Massachusetts Medical Society; Dr. Henry L. Sabine, in response to a toast to Berkshire, "the hills from whence cometh our health;" Dr. Henry J. Bigelow, who gave the following toast:

Our Army and Navy Surgeons—From the skilful and gallant manner in which they have performed their duty, we are confident that if they shall be again called upon to extirpate either rebels, tumors ovarian, or *steatomatous*, there will be at least nothing *stay-at-home-alous* about them.

Dr. Cotting, of Roxbury, and Dr. Upham, of Boston, also spoke briefly.

Dr. Hart, of New York, returned the thanks of the N. Y. State Medical Society for the kindness and urbanity with which their delegation had been received; and expressed the wish that a large delegation might be annually sent from the Massachusetts Medical Society to the meeting of the New York Society; assuring the Society that any delegates thus sent would be elected honorary members for the session, and would have all the privileges of active members for the occasion.

Dr. Morland then made an address of thanks to the Committee of Arrangements, and Dr. Townsend said a few closing words.

The dinner was sumptuous, the tables were adorned with fruits and flowers, the guests were comfortably seated, the great organ filled the lofty hall with excellent music, the speeches were short and good, and every one appeared to enjoy these pleasures to their utmost. The

Committee of Arrangements are entitled to great praise for the admirable management of the occasion.

Wholesale Poisoning by Lead.—It appears that about two months ago various persons in that portion of the Walkill Valley which lies in the western part of Orange County, N. Y., began to be attacked with violent fits of sickness, the symptoms of which were considered by physicians to point clearly towards poisoning by lead. Many cases proved fatal, and it was some time before the cause of the mischief was discovered. At length it was found that the lead was conveyed into the stomachs of the sufferers by bread and meal, and as the greater part of the flour used in that region was ground at the mill of a Mr. Marsh, of Philipsburgh, an investigation was at once made in that direction. Mr. Marsh had four "runs" of stone, and not only ground the corn used in all the country around, but sold a good deal of flour by wholesale, so that his mill was kept running night and day. The set of stones set apart for custom work was very old. It was constantly needing repairs, and large cavities frequently appeared. Instead of filling these holes with the cement generally used for that purpose, the foolish miller put in common lead and pounded it down. When the stones were set running, the constant attrition of course wore off the lead and mixed the particles with the flour. In every pound was mixed lead enough to make a small buck-shot. In the process of fermenting the flour and making it into bread the lead became carbonate of lead, one of the deadliest of poisons, and only the large quantities taken causing a counteraction in the system prevented even more fatal consequences. By examination, it was found that lead could be detected in the flour with the naked eye. Six leading physicians report over two hundred cases of poisoning which came under their charge. It need hardly be said that the mill is closed for the present.—*Advertiser.*

American Ophthalmological Society.—This scientific body, which is composed of the leading active oculists of the country, and which has already established for itself a high character, will hold its third annual meeting in this city on Tuesday, June 12th. The opening session will be held at the Eye and Ear Infirmary, Charles Street, at 9, A.M. Physicians are invited to attend.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 2d, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	39	34	73
Ave. mortality of corresponding weeks for ten years, 1855—1865	41.4	35.6	77.0
Average corrected to increased population	00	00	83.98
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—Four Lectures on Hernia, given at the City Hospital, Boston, by David W. Cheever, M.D.

PAMPHLETS RECEIVED.—Cholera: Facts and Conclusions as to its Nature, Prevention and Treatment. By H. Hartshorne, A.M., M.D., &c. Philadelphia: J. B. Lippincott & Co.

DIED.—In New Orleans, May 12th, E. D. Fenner, M.D., one of the Editors of the *South-ern Journal of Medical Sciences*, just established in that city.

DEATHS IN BOSTON for the week ending Saturday noon, June 2d, 73. Males, 39—Females, 34. Accident, 1—congestion of the brain, 3—disease of the brain, 4—bronchitis, 3—cancer, 4—consumption, 19—croup, 1—debility, 1—dropsy of the brain, 4—drowned, 1—dysentery, 1—typhoid fever, 3—hemorrhage, 2—disease of the heart, 1—infantile disease, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 4—measles, 1—cerebro-spinal meningitis, 1—paralysis, 2—pleurisy, 2—premature birth, 1—puerperal disease, 2—rheumatism, 1—scarvy, 1—smallpox, 1—synovitis, 1—tetanus, 1—unknown, 3.

Under 5 years of age, 19—between 5 and 20 years, 8—between 20 and 40 years, 21—between 40 and 60 years, 15—above 60 years, 10. Born in the United States, 44—Ireland, 22—other places, 7.

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No. 20.

CASE OF THORACIC ANEURISM—DEATH—AUTOPSY. REMARKS ON
THE TREATMENT OF INTERNAL ANEURISM.

[Read before the Boston Society for Medical Observation, February, 1866, and communicated for the Boston Medical and Surgical Journal.]

By HENRY I. BOWDITCH, M.D.

A MERCHANT, formerly a mariner, born in Europe, but for the last two years a resident in Massachusetts, called on me, December 2d, 1865, with a letter from his attending physician, asking consultation. His history was as follows:—

He had usually enjoyed excellent health, except that when on the African coast he had suffered from the fever incident to that climate, and ever afterwards had had at times temporary and slight febrile exacerbations like those suffered on that coast. They do not appear to have injured in a permanent manner his usual health. For the past year he had occasionally spoken to his wife of some pains in the throat, but they were of so trivial a character that she thought little of them. During the same period he had had some difficulty in micturition, obliging him to rise four or five times each night in order to urinate. He had formerly smoked "about all the time," but of late he had used tobacco much less freely, and with great relief to palpitation, which he had attributed to the inordinate use of this article. With the above exceptions, and while in the possession of apparently the most robust health—being able to come from the town where he resided, fourteen miles distant, into the city for the transaction of business and to return with perfect ease each day—he was seized, about two months before I saw him, with the following symptoms. He was not aware of having had any special strain, or of any other accident sufficient to cause them. He had gone to bed in his accustomed health, was awakened suddenly in the night, and found himself with almost complete aphonia and a certain hoarseness of breathing. No other obvious symptoms, except the slightest dyspnoea at first, which, however, soon subsided. No chill or heat, or sign of acute inflammatory or febrile disease. His peculiar hoarseness of breathing and speaking remained ever after until his

death. In a day or two, severe neuralgic pains began to shoot up on both sides of the face and head, especially at the right side. This headache continued in spite of all remedies. It was especially severe at night, preventing quiet sleep. The palpitation, which after leaving off the tobacco had decidedly lessened, now returned, at times violently. He had applied to a homœopathic practitioner, and to the use of his medicines the increase was attributed. Finally, three days before I saw him, he had consulted the physician who sent him to me. All the symptoms had been gradually augmenting. His attending physician had examined the urine and had found no albumen in it. On further inquiry, I elicited the following. From his first attack he had had at times very severe paroxysmal and ineffectual cough; sometimes quite dry, at others accompanied by copious frothy sputa, never bloody. Within the week previous, violent pains had set in between the shoulders, shooting around the left side of the thorax. He had also lost some appetite and some strength. His nights had become very distressing from the influence of the pains—needing large opiates for relief. He had had no hectic or marked fever, and had preserved a good degree of strength. During the week previous, he had also noticed a little difficulty in standing erect, which was not relieved by bending forward, but rather by throwing the spine a little backward. At my office he appeared like one in perfect health, except that he was hoarse, as from accumulation of mucus about the larynx, but the peculiar *moist* characters of the hoarseness were unchangeable. His countenance was easy, having no evidence of serious disease. His radial pulse was regular, equal in both wrists, sufficiently full, and of normal frequency. The left carotid and temporal were less manifest than the corresponding arteries on the right. By the laryngoscope, the parts of the larynx and throat were seen to be normal. The physical signs were as follows:

Flatness to second rib at the right, and over the whole of the left breast down toward the side. Behind, there was a very little less sound in the lower two or three inches of the left back.

Inspection showed nothing remarkable, except that the heart was seen faintly pulsating a little outside of a line let fall from the nipple, and lower down than usual. No local prominence, nor was there any manifest difference between the motions of the two breasts. Behind, motion was decidedly less of the left scapula than of the right.

Palpation. The apex of the heart was felt beating, not forcibly, lower and more towards the left side than usual. There was a thrill felt about the second rib on the left breast. Behind, nothing peculiar, and no pain produced by smart blows or by pressure over the various vertebrae.

On auscultation, the respiratory murmur was scarcely heard under the right clavicle down to the second rib. Loud puerile murmur heard immediately below and in the major part of the same lung,

front and back. Almost total absence of respiration in the left breast and side where flat. The murmur was normal, but less in the left than in the right back, and where there was dulness on percussion the murmur was quite obscure and somewhat bronchial. No râle anywhere in either lung. The sounds and impulse of the heart were heard and felt an inch lower down and more towards the side than usual. The sounds were normal. About the second and third ribs in the left breast was a double beat, as of the two sounds of the heart, and impulse was conveyed to the ear. Under the right clavicle was a bellows murmur.

The sudden hoarseness and its persistence; the violent neuralgic pains of the face and neck, and finally of the thorax; the peculiar paroxysmal, violent and often apparently ineffectual cough, and the absence of all signs of tubercular or malignant disease; the retention, in fact, of perfect health, except in the particulars named—these positive and negative phenomena, combined with physical signs showing conclusively that there was something preventing the free action of the front part of left lung and upper part of the right; the double beat, as of a second heart, heard in the left breast, and the bellows murmur under the right clavicle—all these phenomena seemed to indicate clearly the existence of an aneurism of the arch of the aorta. It moreover *seemed*, from the extensive dulness, to be quite a large one, interfering with the inferior laryngeal nerve and the nerves of the neck and chest. Regarding it in this light, and having, I confess, not seen the pamphlet of Dr. Tuffnell, to which I shall presently allude, I did not deem it necessary to do anything more than to frankly tell the patient of the nature of the disease, and to warn him against over-exertion in anything, to keep the digestive functions in good order, and for the pains I suggested subcutaneous injections. He had previously used various remedies—all without avail. I allowed him to attend *moderately* to business.

Dec. 15th—just thirteen days after I saw him—he visited the city, transacted business as usual, seemed quite well, went home, sat down and read during the evening, and retired to bed; fell asleep and awoke, as usual, with pain. His wife gave him an opiate, and he then fell asleep. She awoke in the morning and found her husband standing up by the bedside, bleeding copiously. In a minute or two he sank on the floor and expired without uttering a word. He had concealed the fact of the dangerous nature of the complaint. The blood that came from his mouth filled half of a washbowl and half of a chamber vessel.

The autopsy, as given by the attending physician, presented the following results:—In the left chest was about three pints of a serous fluid. The lung was condensed and incapable of respiration; no signs of inflammation. In the right chest were old pleuritic adhesions, with old tubercles at the apex. The bronchial tubes were filled with blood. Stomach and duodenum also filled with the same.

Liver softened. Kidneys soft and flaccid, and under the microscope showed fatty degeneration. The heart was normal, but an aneurism, about two inches in diameter, arose at the back of the arch of the aorta. It had pressed upon the left primary bronchus and caused a thinning of its walls for a space of one and a half or two inches, and in one part a rupture had taken place through a small aperture. The inferior laryngeal nerve was flattened out and nearly lost in the wall of the tumor. Neither of the vessels springing from the arch was obstructed. The aorta throughout its course was atheromatous, and a small aneurism, just commencing, about the size of the top of the thumb, was found a little above the origin of the vessel.

A few remarks may be made on the above. The fluid in the chest must have increased during the fortnight after I saw him, for if three pints had existed at my examination the heart would not have been to the left side, but would have been dislocated toward the right, and greater dulness would have been found in the left back. The tubercles at the apex of the right lung, though not suspected from the account the patient gave of his previous life, explained the dulness and absence of respiration under the right clavicle. I suppose that the dulness in the left breast must be explained by the condensation of the lung, owing, perhaps, to the pressure on the bronchial tube leading to it, as Dr. Ellis has described such results to occur in certain cases of aneurism.* It made the aneurism appear very large, whereas it was comparatively small. Only after his death did I have an opportunity of seeing Dr. Tuffnell's pamphlet, which proposes the revival, in fact, with modifications, of what is called Valsalva's method of treatment in cases of internal aneurism. Dr. Tuffnell's pamphlet is entitled "The Successful Treatment of Internal Aneurism, illustrated by Cases in Hospital and Private Practice."† I intend to make use of the facts contained in it. I shall present some views of treatment different in a measure from those of Valsalva and Tuffnell, while at the same time I shall depend upon both of them for my own suggestions. I think it best, therefore, as introductory to the remarks, to refer to the history of the treatment of internal aneurism.

Somewhat more than a century and a half ago, Albertini and Valsalva, professors in the famous and ancient University of Bologna, revolving together one of the directions of Hippocrates for the proper way of curing varices—viz., by drawing blood from them and using *dry* lint—determined to try that treatment in the cure of internal aneurism. Accordingly, adopting what we must suppose, at least, to have been another precept of Hippocrates—viz., quietness of body during the attempt at cure—they agreed to put all their patients suffering from internal aneurism under the three following rules:—1st. Repeated venesection. 2d. A peculiar and very restricted diet. 3d.

* See Boston Medical and Surgical Journal, Dec. 4, 1856; Nov. 2, 1861.

† By Jolliffe Tuffnell, F.R.C.S., M.R.I.A. Churchill, 1864.

Rest in bed. It appears from Morgagni's* account of the method that Valsalva first tried the plan, which Morgagni thus describes. "When Valsalva had taken as much blood as was necessary, he ordered the quantity of meat and drink to be diminished more and more every day, until only half a pound of pudding was taken in the morning and only half that quantity in the evening, and nothing else except water, which was measured and medicated. After the patient had been sufficiently reduced by this method, so that he could scarcely raise his hand from the bed to which by Valsalva's directions he was confined, the quantity of aliment was, day by day, increased until the strength that was necessary for him to get up had returned." With this treatment Valsalva had been very successful in those cases where the patient would submit to the course laid down.

Although it is by no means evident that Valsalva always prescribed very *frequent* bleeding, still that seems to have been understood as his *chief* element of cure, and every one, in speaking of that method since, means repeated venesection; the rest and restricted diet being of inferior importance, and *absolute* quiet being hardly thought of. Even as late as the last quarter of a century, Dr. Hope, certainly one of the most eminent writers of the day on diseases of the chest, when speaking of Valsalva's method, writes of venesection being made under his own care to the amount of ten ounces twice daily for six or seven days; that is, from one hundred and twenty to one hundred and forty ounces in a week. In one case he says "ten ounces daily were taken for sixteen successive days, with excellent result." But on the whole, he "prefers rather larger bleeding at once, say fifteen to twenty ounces, and ten or fifteen ounces twelve hours afterwards, then six or seven ounces every six hours afterwards for a time." He admits, however, that reaction does at times occur, and that the heart instead of going more slowly really becomes more rapid under such treatment. In these days of wide-spread scepticism in regard to all active treatment, combined with the fact already noticed, that the heart becomes quicker instead of slower after repeated venesection, and the still further fact (the reverse of the opinion formerly held), viz., that copious venesections do not tend to improve but rather to deteriorate the blood, these three circumstances would naturally have led to the giving up of Valsalva's plan if that plan rested chiefly on extravagant bleeding. But let it always be borne in mind that that plan rested on *three* great ideas, each of which I contend should be borne in mind, and neither be allowed to run rampant, so to speak, as in the earlier interpretation of the method. In our day, it seems that Dr. Bellingham and Dr. Tufnell, revolving the whole subject, determined, as Valsalva and Albertini in olden times had done, to try the plan after nearly or quite eliminating the one element of

* De Causis et Sedibus Morborum.

venesection. Dr. Bellingham died before the completion of the joint work, and Dr. Tuffnell publishes a small pamphlet, trusting to the value of the cases recorded in it rather than to the size of his book, to make the method widely known. Surely he was correct, and if success equal to what he states he arrived at be gained by those who shall experiment after him, he is destined to hold a most enviable position as one of the profession who, by philosophic thoughts, has done more for practical medicine in the treatment of aneurism than any other writer since Hippocrates. For surely a man who *seems* to prove that five cases out of six of any disease heretofore considered incurable, save by the most devoted follower of Valsalva, are now curable, such a man deserves the highest reputation. I do not exactly like Dr. Tuffnell's statements in regard to Valsalva. In the early part of his pamphlet he says that he had thought that the views entertained by the great Italian might be confirmed by practice, and at another part he says that he considered that Valsalva's views modified would bring about the desired object in the cure of internal aneurism. But later he speaks of his (Valsalva's) propositions as being "ill conceived," while at the same time he adopts two of them—viz., the recumbent position and the restricted diet, which latter is very nearly identical with that of his predecessor, and is the most annoying to the patient, while I do not think that he would wholly refuse an occasional venesection, under peculiar circumstances. The fact is, Dr. Tuffnell's plan is Valsalva's, and the propositions are Valsalva's, only Dr. Tuffnell wisely *modifies* them. Before the end of this paper, I hope to suggest a still further modification. I propose to the members to carry out this course whensoever any one has a case, and report the result to this Society. Perhaps in this way we may in ten or twelve years get our quota of evidence that may still further aid the profession in the treatment of this dire disease. Let me give you a very brief analysis of Dr. Tuffnell's cases:—

1st. An Irish carman, æt. 35; 1851, in hospital; aneurism abdominal, aortic, size of an orange. Treatment—horizontal position three months. Food— $\bar{3}$ viii. solids, $\bar{3}$ vi. liquids in twenty-four hours. Recovery perfect.

2d. Seaman, æt. 39; 1854, in hospital; internal aortic aneurism—undoubted. Ten weeks perfect rest and restricted diet. Complete recovery.

3d. Die-cutter, æt. 54; 1854, in hospital; aortic aneurism, projecting through sternum; all the severer symptoms; integuments alone covering tumor. In three months "general health excellent," and all local signs less; tumor had grown firmer. Finally, he resumed work. Varicose, external vessels were seen in great numbers three years afterwards. The man still at work.

4th. A fat, indolent merchant, with abdominal aneurism five inches in diameter. In three months, tumor quite solid, though pulsating. Thirteen weeks on his back.

5th. A gentleman, æt. 30; a hunter and high liver; October, 1855. Aneurism at the bifurcation of the aorta. In nine weeks, better; in six months, no pulsation remained. He then made over-exertion and needed venesection; again relief. Subsequently, other surgeons saw him and laughed at the idea of there being aneurism, and advised hunting, &c., as before. In eighteen months the aneurism suddenly burst.

6th. Laborer, æt. 30; in hospital, January, 1864. Abdominal aneurism. Pulse, 104 standing, 66 lying. Disease stayed by treatment.

Certainly these are very significant facts, even if there were many more in which there may have been less success. But let me now revert to the plan pursued whereby these results were obtained.

Dr. Tuffnell's treatment was, first, by perfect rest in a recumbent position for two or three months, during which time the patient never raised himself, even to the semi-recumbent posture, but might turn carefully from side to side, and at times lie on his face to relieve his back. He was directed to have some one at hand to assist and to read to and talk with him. He was to be placed in a sunny room, and, if possible, where he could see somewhat of what was going on out of doors and be generally amused. His bed was to be soft, and arranged properly for his stools, &c. Secondly, he was to have a "restricted diet"—viz., three meals per diem. For

Breakfast, white bread and butter,	§ ij.;	milk or cocoa, § ij.
Supper, " " " "	§ ij.;	" or tea, § ij.
Dinner, { meat, broiled or boiled,	§ iiij;	water or claret, § iv.
{ potatoes or bread,	§ iiij;	
Total,	§ x.	§ viij.

and "no more" (page 30, pamphlet). Under this course, Dr. Tuffnell claims to have cured five out of six cases of aneurism of the aorta, and one of them large enough to project through the sternum.

In reflecting upon the subject, the following suggestions naturally occur. Wherein consists the real difference between the plans followed by Valsalva and Dr. Tuffnell, save in the *reasonable* use of venesection by the latter? Dr. Tuffnell says, "the starvation plan spoken of by Valsalva, if employed with bleeding, would prevent the possibility of fibrine being renewed in the blood after it was removed by venesection." Yet he advises an equally starving plan when he orders such a diet as that given above. It is, in fact, the most annoying part of Dr. Tuffnell's principle of action. A few months since, Dr. H. J. Bigelow, of this city, was trying Dr. Tuffnell's plan upon a patient at the hospital, and the patient eloped. Dr. T. expressly states that it would not be submitted to by *one* of his own patients, and he does not tell us how many others were unwilling to submit to it, although he intimates that there were some others.

Let us consult physiology on this matter. A healthy man, according to Dalton,* needs, while exercising during the day, z xlviij. of solid food and z li. of liquid. In other words, five times as much solid and more than six times as much liquid as Dr. T. allows. Hence it seems to me that Dr. Tuffnell's criticism upon the "starvation" plan of Valsalva is hardly just by the side of his own; for Valsalva, as Morgagni tells us, gave z xij. of solid food—that is, z ij. more than Dr. Tuffnell allows—and an indefinite amount (restricted doubtless) of liquid *per diem*. Now the question that arises in my own mind is, whether Valsalva and Dr. Tuffnell are not both wrong in carrying out the "*starvation*" plan, and whether a *modified* diet, and yet enough to satisfy the cravings of hunger and thirst, may not be allowed with perfect safety, and also with success, in the cure of aneurism, provided perfect rest of the body be enjoined. To discuss this question, let us refer again to the physiologists and see what they will tell us. Dalton gives the following as the composition of the blood. In one thousand parts—

Fibrine	-	-	-	-	-	-	-	-	4.05
Albumen	-	-	-	-	-	-	-	-	78.84
Water	-	-	-	-	-	-	-	-	902.90
Phosphates of lime and magnesia, sulphates of soda and potass., chlorides of sodium and potassium	-	-	-	-	-	-	-	}	8.55
Fat	-	-	-	-	-	-	-	-	1.72
Extractive matters	-	-	-	-	-	-	-	-	3.94
									1,000.00

The whole object of Hippocrates by his diet, and of Valsalva with his "starvation" plan and of Tuffnell with his "restricted" diet is, *first*, to make the blood more thick, less watery, and, on the part of the two later writers, to make it fibrinous, so that coagula may form in the vessels. *A priori*, therefore, one would think that a moderate amount of a *peculiar* diet rather than a starving treatment would be the wisest. In other words, we should use a kind of diet that, while satisfying the absolute cravings of appetite, should be so arranged as,

1st, To leave in the vessels the least quantity of blood consistent with health.

2d, To increase the amount of fibrine.

3d, To diminish the amount of watery constituents.

To gain the first, we of course (and every patient would agree to the proposition) should reduce the total amount of food taken, when lying constantly without exercise, from what it would be when in exercise. But is it necessary to reduce it to one fifth or one sixth the amount, as Valsalva and Dr. Tuffnell do?

* A Treatise on Human Physiology, by John C. Dalton, M.D. Philadelphia, 1859.

Why would not one half or one third of the amount be sufficient to gain the end we have in view, and that without inflicting the distress of hunger or thirst upon our patient? I suggest this as a thought bearing upon the still further modification of Valsalva's really excellent plan. It seems to me that it is better than the starvation plan followed by him and Tuffnell. 2d. How shall we increase the amount of fibrine? Evidently all substances capable of being converted into fibrine should be used, and others kept in abeyance or wholly eschewed. Milk, eggs and meat would, I think, according to Liebig, be preferable for this end. Dr. Hammond* sustains this view, and by direct experiment on himself proves that the ends I propose are brought about by an albuminous diet; viz., the water is lessened, the fibrine and generally the solid substances of the blood are increased. His experiments in the use of starch prove that fibrine may be increased by that article also, but the blood will be otherwise deteriorated and the health impaired, which evidently we do not want. 3d. We could diminish the watery elements by diminishing drinks and succulent vegetables. Some liquids are absolutely needed, but why keep the patient constantly thirsty? Let him take small quantities often. Let him rinse the mouth or chew his pebble, as Dr. Tuffnell suggests, and thus excite the salivary glands and relieve thirst.

But does physiological chemistry teach us as yet how to thus *materially* modify the characteristics of the blood? I am not aware of any physiological experiment to meet this desirable end, and it is well worthy of our serious attention. May it not, therefore, be suspected that too much stress has been laid by all, from Hippocrates down through Valsalva and Tuffnell, upon this element in the Hippocratic plan? It may, indeed, be asked, whether Valsalva and Albertini did not wholly misunderstand the meaning of Hippocrates when, instead of his "dry" diet, they tried the "starvation" plan that has been followed ever since. May not the third element, viz., the perfect quiescence and horizontal posture of the patient, be the *main* principle of the three, the other two—viz., the venesection and the dieting—being only subsidiary and to be used *rationaly* in connection with the greatest power of the three, the absolute rest in a horizontal posture?

Let us now examine this third great principle of Valsalva, viz., that of rest in a horizontal posture. There is no evidence that, although he used it, he laid great stress upon it or considered it otherwise than subsidiary to his other principles of treatment—viz., repeated venesections and the dry diet of Hippocrates, or nearly starvation system carried out by himself, and which has been followed so closely by Dr. Tuffnell—so closely, in fact, that both have met with the same difficulties, viz., the unwillingness of patients to sub-

* Physiological Memoirs. Philadelphia, 1863.

mit to the plan proposed. Let me remark, *en passant*, that it is very curious to notice in this history of the treatment of aneurism how each writer has been influenced by the great laws of public thought prevailing in his day. At the time of Valsalva every one bled freely. It was considered that venesection *saved life* in thousands of cases of disease, and that even the healthy might not only with impunity, but with absolute benefit, be freely bled at times and without any grave symptoms being present to indicate its necessity. I can remember, when I was a pupil, that men would demand of me the use of my lancet because they "had always been bled in the spring." How different the fact now. A physician of twenty years' practice told me a few weeks since that he had no lancet, and that he really did not know practically how to bleed. Of course, therefore, Valsalva's plan was doomed to utter contempt at this present day if phlebotomy to any amount was to be allowed as the prime means of cure. But fame said that by it the old masters had cured not a few patients. Our medical maxims of the present day would almost deny the possibility of cure by such means, and we are necessarily led to seek for some other explanation of Valsalva's success. Tuffnell seeks for it in rest and a very restricted diet. He proves the value of rest to be immense. May it not, I repeat, be the *chief* element, aided, in a small degree, by a *modified* diet rather than a greatly restricted one? In 18—, Dr. Bellingham recommended the treatment of aneurism by simple pressure and by restraining the current of blood. There is nothing more powerful in the whole range of medical treatment upon the force and rapidity of the current of blood in the arteries than the change from a standing to a recumbent position. We have already seen that in one of his cases Dr. Tuffnell reports a difference of thirty beats, viz., from 96 standing to 66 lying, or 1800 beats per hour less when recumbent than when standing, or 26,600 beats in twelve hours! How enormous must be the influence, provided it be a constantly observed fact. I made some few investigations on this point, which seem to confirm Dr. T.'s views, although the difference is not so great as he gives.

In my own family, from five healthy persons, I got the following result:—

	Age.	Standing.	Sitting.	Lying.	radial pulsations per minute.			
Boy	13	114	94	92	"	"	"	"
Woman	25	68	70	58	"	"	"	"
"	25	80	72	74	"	"	"	"
"	40	62	64	60	"	"	"	"
Man	57	84	74	60	"	"	"	"
Averages		81.6	74.8	70.0	"	"	"	"

or 11.6 pulsations less in the lying than in the erect posture, which is equal to 666 less pulsations in an hour when lying than when erect.

At the Massachusetts General Hospital, Mr. Nichols, House Physician, kindly obtained for me the following:—

In Surgical Cases without Organic Disease.

	Age.	Erect.	Sitting.	Lying.
Male	23	74	55	48
"	25	78	60	55
"	27	84	71	67
"	23	90	75	65
"	24	100	88	84
"	23	84	76	64
"	32	70	65	64
"	30	76	72	64
"	35	88	78	70
"	19	88	78	76
"	33	76	64	64
"	65	96	82	72
Female	34	96	94	90
"	28	80	76	70
Averages		91.42	73.85	68.07

Diseased Persons.

	Age.	Erect.	Sitting.	Lying.
Male	28	86	82	76
"	50	82	70	68
"	31	88	78	74
"	40	108	100	92
Female	13	110	88	76
"	40	82	76	70
"	25	92	82	80
"	60	94	92	82
"	15	100	90	84
"	34	88	72	66
"	32	102	88	80
Averages		93.81	83.45	77.09

These tables seem to indicate that the average pulse is more rapid in the diseased than the healthy in all three positions. This might be anticipated. In each class, the standing position increases very much the rapidity of the pulse, but rather more in the healthy than in the unhealthy, being 23.35 more in the former to 16.72 more in the latter class. These results are entirely analogous to those noticed by Dr. Guy, of London, many years ago.* Thus, in one hundred healthy males of the mean age of 27, Dr. Guy found the mean numbers of the pulse was, while standing, 79; sitting, 70; and lying, 67. He found, also, that by raising a person without allowing him to make any muscular effort the pulse was but very little altered, thus proving that it is the muscular effort made in standing erect, rather than the position itself, which is the cause of a quickened pulse.

Comparing this powerful influence on the rapid flow of the blood with the little real influence that we can have on the composition of the blood by any diet, and the doubt one has as to whether the increase of the fibrine is really a desirable object to be obtained, and that it forms but a very small constituent part of the circulating fluid, I think we are led to suspect that, after all, this element of quiet in a horizontal position is the most important agent of all the three originally proposed even in Hippocratic days, hinted at and

* Guy's Hospital Reports, Nos. vi. and vii.

followed by Valsalva, and distinctly pressed upon our notice by Dr. Tuffnell, but after all not really so much relied upon as it ought to have been by him or by his predecessors. On the contrary, he evidently considers the very restricted diet as a very important part of the treatment, and he carries this to so great an extent as may hereafter prevent, as it has already prevented, many from submitting to it. This brings me to the final suggestions I wish to make upon this subject. Why not, without giving up either of the principles laid down by Valsalva, use *all of them rationally* and neither of them *heroically*, unless the very quiet rest of the body be considered heroic? Let me touch again upon each one.

1st. Venesection. I should have no hesitation in using venesection to a moderate amount in any case where the pulse was full and strong, and there was much pain and throbbing in an aneurismal tumor. I would use it once, perhaps twice, at intervals of days, to a moderate amount—to ten or possibly twelve ounces at one time. Leeches might certainly be used where there was much local pain or swelling.

2d. Diet. I would simply reduce it to that amount that would just satisfy without overloading the stomach. It should consist of the usual simple meats and vegetables. I should certainly use eggs and meat and albuminous substances generally, in preference to others. I should think the food might be reduced one half.

3d. I would rigidly enjoin *absolute rest horizontally*. The patient should not *once rise* for two or three months. He should have, as Dr. T. suggests, a room as perfectly agreeable as possible, and attendants to aid and amuse him. I would have a bed made for his convenience, and an apparatus by crank, pulleys, &c., to raise him twice daily, still in a horizontal posture, so that the back could be bathed and the bed made anew.

4th. Various medicinals, of course, might be used, according to the peculiarities of the case—among others, perhaps, digitalis, veratrum viride, &c., tending to lessen the frequency of the pulse. So tonics, laxatives or opiates might at times be required.

By this means we may hope, I think, to check if not permanently cure some cases of internal aneurism, even of the most serious character. I sincerely hope that if any member of the Society has a case of internal aneurism, he will think of the plan and faithfully report to us the result.

IN a recent suit for mal-practice, in which Dr. J. W. Smith, of Charles City, Iowa, was defendant, and E. M. Brown (who was treated by Dr. S. for a fracture of the leg caused by the kick of a cow) plaintiff, the jury brought in a verdict of "not guilty."

AUTOPSY OF PROBST THE MURDERER.

To the Editors of the Boston Medical and Surgical Journal.

SEVERAL important experiments, and an exceedingly interesting autopsy, have been afforded during the past week by the execution of the fiendish villain, Anton Probst, whose crime the whole country thinks of with horror, and who was hung last Friday, at fifteen minutes before eleven o'clock, A.M. The body, through the courtesy of the Prison Directors, was turned over to the Faculty of the Jefferson Medical College, for scientific inquiries. I give you, below, as concise and brief an account of the facts relative to the case as possible.

Death took place very quietly, with no violent contortions of the body. After hanging twenty minutes, the body was taken down, and handed over to the scientific commission present. It was placed upon a chair, and, by the aid of the electric spark, the eye was examined with the ophthalmoscope, by Drs. Wm. H. Pancoast and Dyer. The popular idea, lately promulgated, that the impression of the object last seen remained on the retina, was, of course, entirely disproved. I may say here, that the electric battery employed was probably the most powerful one ever used on such an occasion. The lens and capsule were transversely fissured. The iris did not contract under the strong impression of the galvanic battery. Prof. Rand personally superintended the operation of the battery, and on applying the poles to the various muscles of the face, they assumed various expressions, and by the same means the legs and arms were moved wildly about.

The body was then transferred to the college, and on Saturday at 4, P.M., the autopsy was made before a crowded audience, composed of men of all professions and vocations. The law and our own profession were well and fully represented. Dr. W. H. Pancoast, Demonstrator of Anatomy, performed the examination, assisted by Dr. James Taylor and myself. Dr. Pancoast delivered a very interesting lecture to the assembled audience. The furrow caused by the rope was well shown, embracing the entire neck, excepting the space of $\frac{3}{4}$ of an inch, just beneath the left ear, over which had been placed the knot. The tissues subjacent were found compressed and dry. Jugular veins distended with blood, carotid arteries empty. Upon making an incision in the cervical region, the sterno-cleido-mastoides of the right side bulged freely into the wound, showing a rupture of the lower part of the muscle. The hyoid bone was found fractured in both cornua, the body remaining intact. Larynx and trachea normal. There was no dislocation or fracture of the cervical vertebrae. The odontoid process of the axis was intact, neither the transverse or check ligaments being ruptured. The spinal cord was perfectly natural, revealing not the slightest sign of disturbance. On dissecting off the scalp, the vessels were found congested. After the removal of the calvaria the proper coverings of the brain were

found healthy. No congestion was found in the brain substance proper; no fluid in ventricles. Weight of the brain 2 pounds 4 ounces, being four ounces less than Green the Malden murderer's brain weighed. Lungs healthy. The heart was found entirely empty, the right as well as the left side, proving death not to have been due to apnoea. The ascending and descending vena cava, aorta and pulmonary artery, all were empty. Weight of heart, nine ounces and six drachms.

On the morning of the execution, the murderer, at quarter past eight o'clock, partook heartily of a breakfast consisting of two soft boiled eggs, three pieces of bread, and a large tea-cup full of coffee. In two hours and a half his body was swinging between heaven and earth, and yet, what is a remarkably interesting physiological feature in the case, upon cutting into the stomach it was found *almost entirely empty*, and upon opening the small intestines, digestion and chylication were found to have been not in the least impaired by the terrible mental agony the murderer must have suffered in those two hours, but, on the contrary, had gone on to the last with perfection. Liver normal. Weight, three pounds and three and a half ounces. The spleen was very much enlarged, and distended with blood. Could not this organ have acted decidedly as a diverticulum in this case, and in some degree have accounted for the lack of congestion noticed in the lungs, heart and brain? Kidneys congested. Weight of right kidney, five ounces, three drachms and two scruples; that of left kidney, six ounces, two drachms and two scruples. The bladder was healthy, containing about three ounces of urine. Dr. Pancoast stated, as his opinion, the cause of the death to be simply from shock inflicted upon the nervous system, caused by the pressure and tension upon the pneumogastric and phrenic nerves by the fatal rope. This opinion was substantiated by Drs. Hunt, Packard, Nebinger, S. W. Gross, Jewell, and other prominent medical men present. Here was a man, therefore, who had been hanged, and was hanged until he was dead, according to a just law, and yet there is no congestion of the brain, lungs or heart; no laceration of the spinal cord; no dislocation or fracture of the cervical vertebræ, and no laceration of the trachea or larynx, but simply a rupture of the sterno-cleido-mastoidæus of the right side, with a fracture of the cornua of the os hyoides.

The case is one of great interest, and undoubtedly will always be of paramount medico-legal value. There has been much importance attached to the case among the medical profession here, and it must prove of interest to your readers. E. R. HUTCHINS, M. D.

Philadelphia, Pa., June 11, 1866.

Cattle Disease in the Madras Presidency.—The cattle disease has spread to an alarming extent in Burmah, and in some cases is said to have affected the human species.

Reports of Medical Societies.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—THE MEETINGS OF THE SECTIONS.

Section on Chemistry and Materia Medica.

Dr. William B. Atkinson, of Penn., was elected Chairman, and Dr. Augustus Mason, of Mass., Secretary of the Section.

But one paper was presented to this Section, which was by Dr. A. Mason, of Mass., on the *Use of Aluminum as a Base for Artificial Teeth*, as a substitute for gold and other metals, and red vulcanite. Dr. Mason exhibited specimens of teeth thus mounted, and the paper was referred to the Committee on Publication.

During the remarks on this subject, it having appeared that various substances of a noxious nature were in constant use by dentists, a committee was appointed to report at the next annual meeting, on the Deleterious Articles used in Dentistry. *Committee*—Drs. Augustus Mason, Mass.; H. H. Pillsbury, Mass.; A. K. Gardner, N. Y. Adjourned.

Section on Meteorology, Medical Topography, and Epidemic Diseases.

The Section was called to order at 3½ o'clock, P.M., May 1st, 1866. Dr. B. H. Catlin, of Conn., was chosen Chairman, and Dr. N. S. Davis, of Ill., Secretary.

A letter from Dr. R. C. Hamil, of Chicago, member of the Committee on Meteorology and Epidemics for the State of Illinois, was presented to the Section, stating that important progress had been made in preparing a report, and asking for further time to complete it. On motion of the Secretary, Dr. Hamil was continued a member of the Committee another year, and requested to report in full at the next annual meeting of the Association.

The following resolution was offered by the Secretary, and after some remarks on the importance of the several sections of the Association, and the necessity of their perfecting a more permanent and systematic organization, it was adopted as follows:—

Resolved, That the Section on Meteorology, Medical Topography, and Epidemics, appoint a committee to prepare rules for the permanent organization of said Section, with instructions to report at the opening of the Section to-morrow.

Drs. N. S. Davis, of Ill., and B. H. Catlin, of Conn., were appointed said committee.

On motion, the Section adjourned to 3 o'clock, P.M., to-morrow.

WEDNESDAY, May 2d, 1866.—The Section was called to order at 3 o'clock, P.M., Dr. B. H. Catlin in the chair. The minutes of the meeting on the previous day were read and approved.

Dr. N. S. Davis, from the committee appointed to report rules for more efficiently organizing the Section, reported as follows:—

By-Laws of the Section of Meteorology, Medical Topography, and Epidemics.

1st. The officers of the Section shall consist of a President and Sec-

retary, who shall continue their office one year, and until their successors are elected.

2d. The Secretary shall keep a fair record of the doings of the section, with an abstract of all discussions of papers and questions acted upon by the section, and report the same to the Association, or to the Permanent Secretary of the Association, within thirty days after the adjournment of each annual meeting.

3d. When any report, paper or question is read to the section, it shall be subject to a full discussion, but no member shall speak more than once on the same subject, until all others who wish to speak have been heard.

4. Every report or paper referred to the section shall receive a sufficient examination, to determine fully its contents and merits, before it can be recommended for reference to the Committee of Publication. And whenever reports or papers are presented of such length and nature that the section cannot give them the necessary examination during the limited time of its annual sessions, it shall refer them to a sub-committee, with instructions to complete their examination, and report the result to the Permanent Secretary of the Association, within thirty days after the adjournment of the annual meeting.

5th. It shall be the duty of the section to select such topics for original investigation, and refer them to special committees, as will be best calculated to increase our knowledge of those departments of medical science placed in charge of the section.

On motion, the report of the committee was accepted, and the foregoing rules adopted unanimously.

The Secretary stated that a paper had been referred to the section for consideration, on the "Etiological and Pathological relations of Epidemic Erysipelas, Spotted Fever, or Cerebro-Spinal Meningitis, and Diphtheria," by Dr. N. S. Davis, of Chicago, Illinois.

The reading of the paper having been called for, it was read in full by the author. It was listened to with interest and attention; and the allusions in it to the etiology of epidemics generally, led to a very interesting discussion of the question, of how far *local meteorological and sanitary* conditions influence the origin and spread of epidemic cholera.

Dr. Woodward, of Fort Wayne, Indiana, said that sporadic cases of genuine spasmodic cholera occurred in his locality every summer. He stated that two cases came under his observation during the summer of 1865, presenting all the phenomena of true cholera, as perfectly as he had ever observed in the midst of an epidemic of that disease. He thought epidemics usually originated from an exaggeration of the same local influences that gave rise to sporadic cases, as suggested in the paper just read.

Dr. Worthington Hooker, of New Haven, Conn., stated that he had seen cases of real cholera during its epidemic prevalence, so perfectly disconnected from all other cases, that contagion or communication was not possible. He could attribute such cases to no other than local causes. He stated that there appeared to be three theories in relation to the origin and spread of cholera. The first was that which made it depend entirely on a specific poison of a contagious and portable character. The second made the disease depend upon an infectious poison or miasm, capable of acting only when there are special

local qualities of the atmosphere favorable for its action or increase. The third attributes its origin and spread exclusively to local meteorological and sanitary influences. His own convictions were, that in periods when the cholera prevails as an epidemic, certain unexplained telluric influences are added to local causes, which render the latter more active, and give to the disease greater tendency to spread from place to place with some regularity.

Dr. Stockwell, of Michigan, gave an interesting account of the prevalence of epidemic cholera on one side of the St. Clair river, during the summer of 1854, in a limited district, while the other side of the river and surrounding places were exempt, though intercourse remained entirely unobstructed. In the district where the disease prevailed, the soil was level, and immediately underlaid with tenacious clay, thereby preventing ready escape of the surface water, and exerting an influence on the electrical condition of the atmosphere. The soil on the other side of the river was sandy and porous, allowing of the most rapid percolation of water.

Dr. N. S. Davis, of Illinois, remarked that we were yet without the data necessary for determining with certainty either the origin or mode of spread of cholera. If we accept one series of facts, and confine our attention to them, we shall be led directly to the doctrine of contagion and portability. If we accept another series of facts, equally well established, we shall be just as certainly led to the conclusion that cholera arises from local causes. But if we examine critically the circumstances claimed as facts in either series, it will be found that a large proportion of them have been so imperfectly observed, or recorded in such careless general terms, that they are of very little value. He had participated actively in the study and treatment of five different epidemics of cholera, and so far as his own observations were concerned, they led him directly to the conviction that the disease neither travels from country to country, nor propagates itself by contagious virus, or infectious dejections. He mentioned many facts of interest, but claimed that we could not settle definitely the origin of epidemics until more systematic meteorological and sanitary records were kept from year to year, in connection with equally exact records of the prevalence and specific character of diseases. When this has been done long enough to cover the periodical return of two or three epidemics, we shall be able to command all the elements necessary for a comparison, *etiologically*, of epidemic seasons, with those which precede and follow. Then, and not until then, can we, with confidence, deduce such conclusions as should guide, both the profession and the municipal authorities, in the adoption of sanitary laws.

On motion of Dr. Wilson, the paper that had been read to the section was referred to the Committee of Publication.

The following resolution was offered by Dr. Davis, and adopted, viz. :

Resolved, That the Secretary of this section be requested to enter into correspondence with the members of the Committee on Meteorology and Epidemics in the several States, and such other persons as he may think proper, for the purpose of establishing a uniform system of meteorological and sanitary records, embracing the thermometric, barometric, hygrometric, electric, and ozonic conditions of the atmos-

phere; the topography, and the sanitary conditions; in connection with a coincident record of the kind, special character, and extent of of the prevalent diseases, at representative points throughout the whole country.

On motion, the section adjourned.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 14, 1866.

AMERICAN ASSOCIATION FOR THE RELIEF OF THE MISERY OF BATTLEFIELDS.

AN association bearing the above name has recently been organized in this country, the benevolent purpose of which is sufficiently set forth in its title. We have all become too familiar with the horrors and suffering of war since 1861 to regard lightly any effort to alleviate the misery which follows in its train. The humane efforts of the Sanitary Commission and other similar organizations during our struggle, have made it plain enough to all, that the relief organizations belonging to the army proper can never be sufficient to do all that might be done for the prompt and efficient relief of the large numbers of sufferers after any important military engagement. The great good done by these associations has led some of their most active and influential members to take up in this country a movement which in Europe has already met with very general approval. Its object is in time of peace to prepare for the suffering of war, by the training and preparation of suitable relief corps, by procuring for all engaged solely in ministering to the sick and wounded perfect protection in their labors, and in every possible way to alleviate the horrors attendant on a state of warfare.

The movement in Europe was commenced in 1863, by an eye-witness of the suffering subsequent to the terrible battle of Solferino. Monsieur J. Henry Dunant published at Geneva a narrative of his experience at that time, and originated the new movement which has now secured the coöperation of most of the European powers. His narrative attracted very general notice throughout Europe, and the Geneva Society of Public Utility appointed a commission of five to secure the general expression of public sentiment in aid of his propositions. This commission took up the subject with great earnestness, and after a conference attended by official delegations from fourteen governments, undertook, under the title of *Comité Internationale de Secours aux Militaires Blessés*, to secure by legal enactments the embodiment of the proposals of the conference. The articles agreed upon, at its suggestion, by twelve of the European governments are ten in number, and most humane and wise in their provisions. Space does not permit us to copy them in full, but the following abstract gives a condensed summary of their purport.

All ambulances and hospitals are to be acknowledged neuter, to be protected and respected as such so long as they contain any sick or wounded. All the officers connected with them in any way shall

share the benefit of this neutrality, even although they should come into the possession of the enemy, and shall be delivered over in safety to the army with which they are associated when their functions have ceased. Inhabitants of the country which is the seat of war who may bring help to the wounded shall share the same immunity, and any house in which a wounded man shall be taken care of shall be protected by his presence, and shall be in consequence exempted from any subsequent quartering of troops; and the dwellers therein from part of the contributions of war which may be levied. It is also made the special duty of Generals of the belligerent powers to appeal to the humanity of the inhabitants of the occupied country and to inform them of the privileges secured to them by their benevolent action. The wounded and sick are to be entertained and taken care of irrespective of their nationality, and after an engagement, when circumstances permit, and with the consent of both parties, the wounded may be delivered at once to the army to which they belong. Those permanently disabled, after recovery, shall be sent to their own country, and others may be sent back on condition of not bearing arms during the war. A distinctive flag is to be adopted for hospitals and ambulances, and an arm badge for the individuals employed about them, which are to bear a red cross on a white ground. The remaining articles provide for the details of execution and for the communication to those governments which have not joined the league of the terms of agreement, and an invitation to them to accede thereto. The whole were ratified at Geneva, August 24th, 1864. The articles were signed by the representatives of Italy, Baden, Belgium, Denmark, Holland, Spain, Portugal, France, Prussia, Saxony, Wurtemberg and the Federal Council of Switzerland.

In the present aspect of European affairs the provisions thus agreed to come at once into practical significance. There are several important omissions in the list of States as published; among others that of Austria, which must seriously obstruct the carrying out of the benevolent designs of their originators. It is to be hoped, however, that even in the event of a general European war, it is not yet too late to bring into the agreement all the powers that have not heretofore joined in it. The movement in this country to associate the United States with the European nations in this benevolent project, is deserving of general approval, although we are happily removed from the complicating causes which at all times make a general peace on the other side of the Atlantic so precarious. We hope our National Government will not delay to set its seal to the articles.

The officers of the American Association are—Dr. Henry W. Bellows, President, and Charles L. Brace, Secretary; and the names of seventeen other prominent gentlemen in New York and elsewhere are published, to constitute, with such others as may hereafter be elected to membership, a Central National Committee, auxiliary to the Geneva International Committee. At the first meeting, held in January last at the rooms of the Sanitary Commission in New York, it was stated that at that time the only governments which had not united in this organization were Turkey, Austria and the United States. We cannot doubt that the humane provisions which it is intended to secure must soon unite the whole civilized world in this benevolent compact.

Death of Dr. Charles H. Stedman.—The death of this well-known and respected physician took place quite suddenly on Friday evening, after a confinement to the house of only three days. The cause of his death was found at the autopsy to be extensive fatty degeneration of the heart, which had produced a rupture of the left ventricle and an extensive effusion into the pericardium. The case will be reported in full hereafter, and our limited space compels us to defer to a future occasion the further remarks which the decease of a member of the profession so widely known and regarded as Dr. Stedman naturally suggests.

Providence Medical Association.—At a recent meeting of the Providence Medical Association, the decease of Dr. Nathaniel Miller having been announced, the following resolutions were adopted:—

Resolved, That we mourn the loss, by protracted disease and death, of a member of our Association, already eminent for practical skill, and who gave promise of lasting usefulness in the community.

Resolved, That we sincerely sympathize with the family of the deceased, and especially with his honored father, in this bereavement.

Resolved, That we will attend the funeral of the deceased.

Resolved, That these resolutions be communicated to the father of our deceased associate, and entered on our records.

W. H. TRAVER, *Secretary.*

G. L. COLLINS, *President.*

Cholera in New York.—Since the 30th of April, several cases of cholera have been reported in New York City. One of the latest, a fatal case, is said to have been that of a woman who washed the clothes of a previous patient. No evidence has been published, that we have seen, that these cases are traceable to those at quarantine, and so far they go to sustain the theory of the possibility of this disease being produced by epidemic or endemic causes alone. Nevertheless, if there be a special tendency to its development, there is all the more reason for keeping away as far as possible from contact with the mass of the population everything like an exciting cause, and therefore for still maintaining a rigid quarantine. Sporadic cases, not distinguishable from Asiatic cholera, occur in our large communities every year; we have ourselves attended two such within a few years. Whether under certain atmospheric conditions such cases may become the starting point of an epidemic is a question deserving of grave consideration.

Rinderpest in the United States.—The Secretary of the Maine Board of Agriculture, S. L. Goodale, Esq., gives an unusually intelligent account of the appearance, in the latter part of April, of a grave disease in a herd of cattle at York, in that State, which looks exceedingly like the fatal disease which has been so destructive to the herds in Europe during the past year. His account of the symptoms and *post-mortem* appearances is very clear, and leaves no ground for belief that it is pleuro-pneumonia. In accordance with the recent alleged discovery of Prof. Polli of the power of alkaline sulphites to arrest the action of the causes of zymotic disease as they do fermentation, the Secretary administered small doses of the sulphite of soda to the

unaffected cattle of the herd, and the disease was arrested, as he modestly says, "whether in consequence of giving a harmless salt, or merely coincident with it, I cannot tell." Perfect isolation of the herd was maintained, and it is hoped the disease will extend no further. It is also stated, on the authority of the President and Secretary of the New York State Agricultural Society, that rinderpest exists among the stabled cows of New York and Brooklyn; but as no account of the disease is furnished we accept the statement with doubt. It is also stated, on official authority, that "rinderpest, or pleuro-pneumonia," exists among the cattle of Pennsylvania; but as this statement is evidently made under the impression that the two diseases are identical, nothing can be learned from such an ignorant announcement.

The Brain of Green the Murderer.—The following is the correct report of the examination of Green's brain. The account published in the JOURNAL a few weeks ago was inaccurate in several particulars.

The substance of the brain was normal in appearance and firmness; slight extravasations were noticed on the cerebrum near the longitudinal fissure, near the left fissure of Sylvius and on the upper surface of the cerebellum.

Weight of the whole brain 2 lbs. 8 oz.

" " cerebrum 2 lbs. 3 oz.

" " cerebellum, with the medulla oblongata, . 5 oz.

Cerebrum : cerebellum :: 7 : 1.

In average cases they are as 8 : 1. Green's cerebellum, though absolutely small, was relatively large.

The specific gravity of the brain, the average of three determinations, was 1043.

In proportion to the size of the body, Green's brain was somewhat larger than the average. Taking the average weight of the brain at 3 lbs. and that of the body at 140 lbs., the weight of the first would be to that of the second as 1 : 46 $\frac{2}{3}$. Green's body is stated to have weighed 100 lbs.; assuming this to be true, the weight of his brain was to that of his body as 1 : 40.

Stevens Triennial Prize.—A Prize Fund of One Thousand Dollars has been established by Alexander H. Stevens, M.D., Ex-President of the College of Physicians and Surgeons, New York, for the improvement of Medical Literature, on the following plan.

Each Prize, to be accorded triennially, is to consist of the interest yielded by the Principal Fund during the preceding three years, and will amount to about Two Hundred Dollars.

The administration of the Prize is intrusted to a commission, consisting of the President of the College of Physicians and Surgeons (*ex-officio*), the President of the Alumni Association (*ex-officio*), and the Professor of Physiology (*ex-officio*) in the same institution.

The following subjects have been selected, at the request of Dr. Stevens, for the first triennial Prize under this Fund.

1st. The best means of preventing death after surgical accidents.

2d. The History of Improvements in the Medical Art, and the means by which they are attained.

The competing essays on either of the above subjects must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1869. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope bearing the same device or motto, and containing the name of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the Annual Commencement of the College in March, 1869.

This Prize is open for universal competition.

EDWARD DELAFIELD, M.D.,

Pres. of Coll. of Physicians and Surgeons.

ALFRED C. POST, M.D.,

Pres. of Alumni Assoc. of Coll. of Physicians and Surgeons.

J. C. DALTON, M.D.,

Prof. of Physiology in Coll. of Physicians and Surgeons.

American Ophthalmological Society.—This Association is holding its third Annual Meeting during the present week. The first session was held on the 12th at the Boston Eye and Ear Infirmary, and we learn that its proceedings were of great interest. In the evening the Association, with many gentlemen of the medical profession of this city and neighborhood and other prominent citizens, were entertained by Dr. John H. Dix, at the Hotel Pelham, in the most elegant and hospitable manner. The second session was held at the City Hospital. In our next number we hope to lay before our readers a full report of the transactions of the meeting.

Iowa State Medical Society.—The annual meeting of this Society was held at Davenport on May 9th, and the following gentlemen were elected officers for the ensuing year:—*President*, Dr. John W. H. Baker, of Scott. *Vice-President*, Dr. James C. Lay, of Dubuque. *Recording Secretary*, Dr. Washington F. Peck, of Scott. *Corresponding Secretary*, Dr. Abram M. Carpenter, of Lee. *Treasurer*, Dr. M. B. Cochran, of Johnson. The session lasted two days, and several communications of interest were presented. The annual address was delivered by Dr. John H. Rauch.

Vermont Medical Society.—The semi-annual meeting of the Vermont Medical Society will be held at Brattleboro', in the lower Town Hall, on Wednesday and Thursday, June 13th and 14th inst., commencing at 10, A.M., of Wednesday. The present meeting promises to be one of absorbing interest to the profession throughout the State, and we trust it will be largely attended.

American Medical Association.—Our report of the proceedings of this Association is made up from the *Baltimore Sun's* report of the first day, kindly sent us by the President, Dr. D. H. Storer; from corrected slips from the *New York Medical Record*, supplied to us by the Secretary, Dr. Atkinson, and from his report as published in the *Philadelphia Reporter*; and we beg thus to acknowledge the favors received from these gentlemen.

Messrs. Editors,—Various substances—such as dextrine, starch, plaster of Paris, &c.—have been used for the support of a fractured limb after the removal of splints; but nothing equals glue, used in the following manner. It should be dissolved as for mechanical purposes. The limb should be well greased to prevent the glue from sticking; a woolen stocking leg, fitting snugly, is then to be drawn on, and with a small brush to be saturated with glue. Next apply a roller, two or three thicknesses, which will absorb glue enough from the stocking to hold it. Place the limb upon a splint till the glue hardens, which will require about three hours. A space about one fourth of an inch wide the whole length of the stocking should be left unglued, for the purpose of cutting open the splint if the limb should swell. It can be replaced, and two or three pieces of tape tied around to hold it in position. I am fully persuaded, if surgeons will try this method that they will never resort to any other.

It is quite as useful in the treatment of congenital club feet. All must have experienced great difficulty in keeping a foot in position by any mechanical apparatus, however ingeniously constructed. A glued stocking will accomplish it perfectly. It should be applied as in the case of a fracture, only a stocking, instead of a stocking leg, should be employed. The foot must be held in position by the hand of some one till the glue hardens. The space unglued should pass over the dorsum of the foot and up the shin. The splint should be cut open along this space, and removed two or three times a day for the purpose of rubbing and moving the foot, then re-applied and held in place by two or three pieces of tape. When the child begins to stand or walk, the usual steel or iron apparatus should be attached to a common shoe, to be worn during the day, and the glue stocking at night, as long as it may be necessary. By this apparatus the foot is held perfectly in place, without discomfort to the child, and cases may be treated by any physician with perfect ease. It is equally well adapted to older persons. All must have seen the steel or iron apparatus usually worn, so that a description is unnecessary. I will simply add, that the steel straps may be attached to a stout shoe, and that there should be a joint at the knee, and the apparatus should extend part way up the thigh.

W. D. BUCK, M.D.

Manchester, N. H., June, 1866.

Appointment in Harvard Medical School.—Dr. David W. Cheever has been appointed by the Corporation of Harvard University Assistant Professor of Anatomy in Harvard Medical School.

Medical Graduates.—At the annual commencement of the University of Pennsylvania, held on the 14th of March, 1866, the degree of M.D. was conferred on 165 candidates; at Jefferson Medical College, Philadelphia, on the 10th of March, on 165 candidates; the Medical Department of Columbia College, New York, on the 9th of March, on 112; by the University of the City of New York, on the 2d of March, 78; by Bellevue Hospital Medical College, Feb. 24th, on 172. Yale College conferred the degree of M.D. on 12 candidates in January last; Rush Medical College, on 90 candidates in January; Chicago Medical

College, on 22 in March ; the University of Buffalo, on 40 candidates in February.

Medical Intelligence.—The French Emperor has granted 300 medals—10 in gold, 178 in silver, and 112 in bronze, to those of the medical profession who evinced zeal and devotedness in the care of the sick during the late visitation of cholera.

Out of 100 children born in Norway, 83 attain the age of five years ; in Sweden, 80 ; in Denmark, 80 ; in England, 74 ; in Belgium, 73 ; in France, 71 ; in Prussia, 68 ; in Holland, 67 ; in Austria, 64 ; in Spain, 64 ; in Russia, 62 ; in Italy, 61.

The French delegates at the International Sanitary congress at Constantinople have presented a plan to maintain the strictest quarantine over all the Egyptian and Arabian ports, wherever the cholera shows itself among the pilgrims again, and to enforce the same by ships of war.

One of the late numbers of the London Medical Times and Gazette republishes several advertisements from our covers to illustrate the customs of American Physicians.

The Surgeon General has had constructed a beautiful model of the Hicks United States General Hospital at Baltimore, Md., which he designs to send to France, to be exhibited at the Paris Exhibition of 1867. The model is of wood, and is made on the scale of one inch to twenty feet.

A boy, four years and a half old, suffering from retention of urine, was made to inhale chloroform at the University Hospital of Berlin, to facilitate catheterism. In two or three minutes respiration ceased, and all means of resuscitation failed.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 9th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	40	33	73
Ave. mortality of corresponding weeks for ten years, 1855—1865	36.0	32.8	68.8
Average corrected to increased population	00	00	75.04
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—A case of Leucoderma, by Hall Curtis, M.D.—Excessive pain of a neuralgic character following amputation of the Forearm, by J. Stedman, M.D.—Case of Splenitis, or Enormous Enlargement of the Spleen, by Frank A. Young, M.D.—Case of Retained Catamenia, by H. C. Robbins, M.D.

DIED,—In this city, 8th inst., Dr. Charles Harrison Stedman, aged 61 years.

DEATHS IN BOSTON for the week ending Saturday noon, June 9th, 73. Males, 40—Females, 33. Abscess, 1—accident, 4—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 3—disease of the brain, 4—cancer, 2—cerebro-spinal meningitis, 1—consumption, 18—convulsions, 1—croup, 2—dropsy, 1—dropsy of the brain, 1—epilepsy, 1—intermittent fever, 1—gastritis, 1—hematemesis, 1—disease of the heart, 5—infantile disease, 3—disease of the hip-joint, 1—disease of the kidneys, 1—inflammation of the lungs, 3—marasmus, 4—old age, 1—paralysis, 2—rheumatism, 1—ulceration of the stomach, 1—stone in the bladder, 1—suicide, 1—tumor, 1—unknown, 3—whooping cough, 1.

Under 5 years of age, 21—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and 60 years, 14—above 60 years, 12. Born in the United States, 52—Ireland, 17—other places, 4.

THE

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No. 21.

LECTURES ON HERNIA, GIVEN AT THE CITY HOSPITAL, BOSTON.

By DAVID W. CHEEVER, M.D., one of the Visiting Surgeons, and Assistant Professor of Anatomy in Harvard University.

[Communicated for the Boston Medical and Surgical Journal.]

No. I.—*On the History, Anatomy, Varieties, Statistics and Cause of Hernia.**

THE escape of any viscus from its containing cavity, called hernia, probably owed its name to the Greek *ἕρως*, a branch, or offset; an offset from the peritoneum, somewhat analogous in form, and in form alone, to the *diverticula*, which are common as an error of formation in the ileum. This offset, when it becomes sufficiently enlarged to receive the escaping bowel, is called the *hernial sac*.

Various estimates have been made as to the frequency of this infirmity in proportion to all mankind, which vary from one in eight to one in sixteen. Probably a mean of one in twelve is sufficiently correct.

If, then, eight per cent. of all our race are afflicted with hernia, it is not strange that the attention of medical men in all ages should have been directed to its observation, nor that the literature of the subject should be immense in range and exhaustive in research.

Passing by the earlier writers, from Hippocrates and Celsus down, we find not much of any value to us now until about a century ago.

In 1757, Camper published the first plates on Hernia worthy of the name. These were wood-cuts, in folio form, and were sufficiently accurate in anatomy, though rough in execution.

Sir Astley Cooper, in 1804, gave to the world his admirable treatise on Hernia—inguinal, crural and umbilical, as well as the

* It is not pretended that these papers on Hernia contain anything essentially original or new. As abstracts of clinical lectures, delivered unwritten, and illustrated by cases, they were subsequently condensed and written off. They are merely short-hand, and it is hoped clear and succinct, notes on rupture. They are designed to render clearer to the student, what we have always found difficult to teach, the anatomy of hernia.

And it is hoped that the subsequent papers on the Differential Diagnosis, the Operations for a Radical Cure, and the Treatment of Irreducible and Strangulated Hernia, may present some points of interest to the physician.

rarer forms.* Published in large folio, with steel engravings of good merit, they yet owed their chief excellence to the descriptive text—so terse, clear, simple and direct, that, to our thinking, it has not been equalled since.

The plates were far surpassed by Scarpa in 1809.† The great Italian anatomist was so fortunate as to secure in Anderloni an engraver, who afterwards made himself a familiar name in classic works of art. As illustrations of the anatomy of a region peculiarly difficult to represent, they equal in clearness Albinus and Vesalius in other departments.

From 1806 to 1829, the two Hesselbachs—father and son—who gave their family name to the triangle which lies between the *rectus abdominis* and the obliterated *hypogastric* artery, published monographs on Hernia.

But as exhaustive reviews of the subject, it would be hard to surpass the theses of Cloquet, offered in concours, in Paris, in 1819.‡ These essays were based on 500 dissections of herniæ in the dead subject, on 200 preparations, and 600 drawings. Such industry may well put to the blush more modern efforts.

Langenbeck, of Berlin, in 1817, published a monograph on Hernia.

Perhaps the best known and most read of later works has been that of Lawrence, in 1838.§ This is a compendium, in the English language, of all other writings.

Not much later, Morton published, in London, some beautifully colored illustrations of Hernia.

Finally, in 1863, Mr. John Wood issued his monograph on Rupture and its Radical Cure.||

In the fourth volume of Holmes's Surgery will also be found an admirable review of Hernia by Mr. Birkett.

Taken in the order of frequency, oblique inguinal, crural, direct inguinal and umbilical comprise those herniæ which escape through the natural apertures left for the passage of the testis, or round ligament; the femoral vessels, and the omphalo-mesenteric vessels and duct; while thyroid, sciatic, perineal, vaginal and diaphragmatic herniæ are not only far more rare, but differ also in forcing for themselves a passage through the weak spots of the pelvic outlet, or the diaphragm. The term ventral hernia is restricted to that which occurs through a wound of the abdominal walls, or between the *recti*

* The Anatomy and Surgical Treatment of Inguinal and Congenital Hernia. By Astley Cooper, F.R.S. London. 1804. Folio, with Steel Plates. Also, of Crural and Umbilical Hernia. Folio. 1807.

† Sull' Ernie, Memorie Anatomico-Chirurgiche. Di Antonio Scarpa. Edizione Seconda. Pavia. 1819.

‡ Recherches Anatomiques sur les Hernies de l'Abdomen. Par Jules Cloquet. à Paris. 1817. Recherches sur les Causes et l'Anatomie des Hernies Abdominales; Thèse Soutenue publiquement. Par Jules Cloquet. 1819.

§ A Treatise on Ruptures. By W. Lawrence, F.R.S. Fifth Edition. London. 1838.

|| On Rupture, Inguinal, Crural and Umbilical; the Anatomy, Pathology, Diagnosis, Cause and Prevention; with new methods of effecting a Radical Cure. By John Wood, F.R.C.S. London. 1863.

muscles separated by pregnancy; and, finally, internal hernia is a term sometimes applied to strangulation within the abdomen.

The terms bubonocoele, scrotal hernia, enterocoele and epiplocele do not need remark. But there are two terms, used by older writers, which demand explanation, as they might mislead. They are *hernia humoralis*, meaning orchitis; and *hernia varicosa*, a varicocele or cirsocele.

The whole anatomy of oblique inguinal hernia may be summed up in the descent of the testis, and the changes it imposes on the parts through which it passes. The testicle, in the earlier part of the foetal state, lies just below the kidney, and, like the latter, just behind the peritoneum, by which it is partially enveloped in front. The gubernaculum, or leading string, which guides it to the scrotum, has developed upon it, according to Mr. Curling, three sets of muscular fibres—one set attached to Poupart's ligament, a second to the pubes, and a third to the scrotum. As the testicle descends along the psoas muscle, the first set direct it to the inner abdominal ring; the second draw it through the canal, while the third conduct it to the bottom of the scrotum. The testicle passes through these fibres in its descent, and they become involuted on the spermatic cord, forming the loops extending down from the internal oblique over the cord and returning to the pubes, under the name of cremaster muscle. But the testicle also pushes before it the peritoneum which over-lies it, and thence protruding it in a bag or sac, in its descent through the inguinal canal, carries a double layer before and over it to the bottom of the scrotum. Here the two layers invest the testis in a double covering, with a serous sac between—the cavity of the tunica vaginalis. Just as in all serous investments, the organ lies behind the membrane: one layer invests the testis in front, named the *tunica vaginalis testis*, or *propria*; the other layer adheres to the scrotum, which it lines, under the name of *tunica vaginalis scroti*, or *reflexa*. This may be rather trite anatomy to go over, but it seems necessary to review it, for a fair understanding of the subject. When the testicle descends, it leaves an open pouch of peritoneum behind it, which becomes entirely cut off afterwards, in the normal state. It is upon certain imperfections in this closure that the varieties of oblique hernia and of hydrocele depend.

When the closure of the pouch of peritoneum takes place between the scrotum and the abdomen, the lower pouch is called the *vaginal* process, the upper the *funicular* process of the peritoneum.

The first variation from the normal state is where the pouch does not close at all, and remains one cavity from the abdomen to the bottom of the scrotum. Through this the bowel slips down and forms a congenital hernia, lying in contact with the testis.

In the next form an attempt is made at closure, but is not fully carried out. The common canal becomes occluded at one point near the external ring; the funicular process shrinks up within the inguinal

canal, but the vaginal process remains open up to the external ring. Thus we have all connection with the peritoneum closed; but the closed cavity of the tunica vaginalis scroti reaching up on the cord as high as the external abdominal ring. If, then, a hernia protrude, it pushes before it its own pouch of peritoneum, and emerging at the outer ring, descends into or behind the large vaginal sac; and we thus have the anomaly of a rupture covered by two serous sacs instead of one. This is called *encysted* hernia—sometimes infantile hernia, but that is a misnomer.

In the third variety we have the connection between the scrotum and the common peritoneal cavity completely cut off; the vaginal process contracted to a normal size around the testis, but the funicular process dilated and patent for a short distance on the cord. Into this dilatation, which extends from the inner ring to a point an inch, more or less, below the outer one, a knuckle of intestine may gradually descend, and thence creep slowly down into the scrotum, where it does not lie in contact with the testis, but, usually, in front of the tunica vaginalis. This is the form of common oblique hernia, which comes on slowly and spontaneously at some period between childhood and maturity; not congenital, but so gradual that the patient cannot define its exact period of origin. After reaching the scrotum it is not distinguishable from the other ordinary forms of hernia.

Finally, we have the normal and perfect closure, where the vaginal process is converted into a serous sac around the testis, and the funicular process wholly retracted within the inguinal canal, where it assumes the name of infundibulum process, which envelopes the cord at the inner ring. The remains of the original serous passage shrink into an impervious mass, and, together with the traces of the gubernaculum, envelope the cord in loose areolar tissue. This, then, is the case in which either oblique or direct hernia occurs from a strain, or rupture, forms its own proper sac of peritoneum, emerges, in either case, at the outer ring, and descends into the scrotum in front of the testis and tunica vaginalis; and the only difference in the covering of the hernia is, that when oblique it is surrounded by the fibres of the cremaster, and when direct it pushes before it the conjoined tendon.

The same varieties of closure of the pouch of peritoneum cause and explain the varieties of hydrocele.

If the cavity is entirely unclosed, we may have a congenital hydrocele, where the fluid will return into the abdomen.

The vaginal process may be closed below, and one or more separate serous pouches exist above on the cord, either without or within the inguinal canal, and this constitutes hydrocele of the cord; or, finally, we may have entire closure above and below, and dropsy of the cavity of the tunica vaginalis testis and reflexa, constituting common hydrocele, beginning at the bottom of the scrotum.

Somewhat analogous changes occur in the passage of the round ligament in the female; and the funicular process of peritoneum which remains patent is then called the canal of Nuck. Wrisberg, in 19 out of 200 female bodies found an opening leading through the ring into the labium lined by peritoneum. It may be the cause of a congenital inguinal hernia in the female. An account of the dissection of such a case by ourselves will be found in Vol. Lxx., No. 7, of this JOURNAL.

In femoral, or crural hernia, we have always similar anatomical changes to deal with, without the variety of conditions which we have described in the inguinal forms. This is because the crural ring and canal are not pervious for the passage of any viscus like the testis through them. We have, it is true, a complex arrangement of fasciæ, which it is not necessary to dwell on here. But the pouch of peritoneum, forming the hernial sac, is always the same offset from the great peritoneal cavity; and the only difference is as to whether it be arrested at the crural ring or extend down through the saphenous opening.

In umbilical hernia, again, we have a simple and constant arrangement of parts. In infancy, the pouch of peritoneum protrudes through the unclosed foetal opening for the umbilical cord. Its coverings are only the skin and superficial fascia. It thus becomes very thin; the peritoneum in old cases is nearly absorbed, and it seems as if the hernia might burst through. Such herniæ are very dangerous to meddle with by operative procedure. In the umbilical hernia of adults, occurring mostly in obese females, we quite frequently have the rupture protruding through a small opening in the sheath of the rectus, near the umbilicus; being really a ventral hernia, though appearing to be an umbilical one.

An imperfect nomenclature has given rise to most of the difficulty of understanding and describing hernia. Thus the two pillars of aponeurosis of the external oblique muscle, which environ the outer ring, called external and internal, should be called lower and upper. The outer abdominal ring, though outermost with reference to the plane of the abdominal muscles, is innermost with reference to the median line of the body; and the inner abdominal ring, in like manner, is farthest out from the median line.

So, too, oblique inguinal hernia is called external, because it passes outside the epigastric artery, although it emerges from the abdomen through the inner ring; and direct inguinal hernia is called internal, because it lies inside the epigastric artery, although it passes directly out of the external abdominal ring.

If possible, a worse confusion occurs in naming the fasciæ concerned in femoral hernia.

Thus we have the iliac portion of the fascia lata forming Hey's ligament, or the outer, falciform border of the saphenous opening; and the iliac fascia proper, lining the iliacus internus muscle within

the pelvis, and forming the posterior half of the sheath of the femoral vessels. Also, the transversalis fascia forming, above Poupart's ligament, the posterior wall of the inguinal canal, and below the ligament, by another expansion of it, forming the anterior sheath of the femoral vessels, or fascia propria of femoral hernia.

In mapping out the anatomy of the inguinal region, the great land-mark is the spine of the pubes. It can always be felt, even in the most unfavorable subject. Into the pubic spine is inserted the lower or outer pillar of the outer ring; and passing across to the symphysis, just above the spine, is the upper or inner pillar of the same opening. Over and a little outside the spine of the pubes the external abdominal ring is inevitably to be found. It may be best felt in the male by placing the finger at the bottom of the scrotum, and invaginating it up into the ring. Just above, and at the middle of Poupart's ligament, is the internal abdominal ring. Below Poupart's ligament, and about midway between the outer and inner abdominal rings, is the crural or femoral ring.

These relations are constant, and by starting from the pubic spine we can make them all out.

Thus, we can distinguish a femoral from an inguinal hernia, even though the former be rolled up into the site of the latter, by either drawing down the tumor and seeing if the neck be below or above Poupart's ligament, or by finding the pubic spine, and exploring the external abdominal ring.

The statistics of the London Truss Society for twenty-eight years, embracing a total of 83,584 cases of hernia, go to prove:—

First, That hernia is more frequent in males than females, there being 67,798 males to 15,786 females—or four to one.* This must be taken with some allowance for the fact that women are more apt to conceal, and less apt to seek aid for hernia, than men. But the great preponderance of males is probably to be explained by their more laborious pursuits.

Second, That hernia is more common on the right side than the left, in both sexes. Thus of males, 24,316 right side to 14,006 left, or 2 to 1. Females, 3,256 right to 2,255 left, or 3 to 2. Cloquet assigns as the cause of this, that in most severe labor we use the right side in such a way that a line drawn perpendicular to the plane of the diaphragm falls over the right inguinal region, and the strain comes on the openings of the right side.

Third, That inguinal hernia is the more common form in males, and femoral in females. Thus of inguinal hernia, 38,322 males to 1,097 females; and of femoral hernia, 699 males to 5,511 females. The cause is to be found in the anatomical differences of the sexes. In the male the inguinal canal is dilated for the testicle and cord. In the female the greater width of the wings of the ilium, and consequently of the femoral arch, leaves a larger crural opening, and predisposes to that form of hernia.

Fourth, That umbilical and ventral hernia are more common in females than males. Of umbilical, 2,775 females to 664 males. Of ventral, 415 females to 209 males. This is probably due to causes incident to pregnancy, and the separation of the recti muscles. According to Mr. Syme, the straining in labor is also a common cause of femoral rupture.

The real cause of hernia, apart from accidental rupture by sudden over-exertion, we believe to be, in great degree, hereditary; in other words, that a tendency to loose rings, or to various degrees of imperfect closure of the funicular process of peritoneum, runs in families, or descends from father to son. Great length of the mesentery or omentum has been assigned as a cause, but this would seem to be negatived by the occurrence of hernia in children, in whom those structures are very short.

The mode of formation of the hernial sac is of interest and importance. This pouch of peritoneum is distinguished into a neck, where it emerges from the rings; a body, and a fundus or dilated extremity. In the congenital hernia the neck is nearly as broad as the fundus. In the ordinary adult hernia the neck is narrow. In some sacs there may be one or more constrictions outside the rings; and there may be two, or even more sacs, in the same region, as figured by Cooper. The sac of peritoneum elongates and stretches as the rupture increases by the *vis à tergo* within the abdomen; and it, before long, becomes organized and thickened, and contracts adhesions to the scrotum and inguinal canal. Thus it happens that in very many herniæ, perhaps the majority, the sac becomes irreducible back into the peritoneal cavity, although the bowel can be returned within the abdomen. We may have a hernia, without a sac, of the cœcum, or colon, or bladder, or any viscus which, not wholly enveloped by peritoneum, can slide down behind it.

Although the sac be adherent, if its contents can be pushed back into the abdomen, it is called a *reducible* hernia. But adhesions are very apt to take place between the contents of the sac, whether intestine or omentum, and the sac itself, as well as of the latter to the surrounding parts. If both these events occur, the hernia is called *irreducible*. If, now, a temporary stoppage of the peristaltic action of the bowel in the rupture takes place, through the accidental presence of flatus or a fecal mass, the hernia is called *incarcerated*. If this state of things continues unrelieved we have, next, *inflammation*. Here the position of affairs has become critical, but *may* be relieved by fomentations, rest, opium, &c. But, finally, if either the above condition continues in an irreducible hernia, or arises *de novo* in a reducible rupture—which has got suddenly down and been nipped, as it were, unawares—we have next *strangulation*, mortification and death, unless relieved by an operation.

CASE OF RETAINED CATAMENIA.

To the Editors of the Boston Medical and Surgical Journal.

THE following may not be uninteresting to young readers. April 2d, I was called to visit Mrs. R., whom I found suffering from an attack of remittent fever. After prescribing for her, she called my attention to her daughter—a girl of 15 years. Upon inquiry, I learned that she was suffering from severe pain in the lumbar region, which she described as “bearing-down” pain. I was told that she had never menstruated, and this fact, together with her age, development of mammæ, “bearing-down” pains and general *embonpoint*, naturally led me to the conclusion that I had to deal with a case of suppressed catamenia. I therefore ordered a brisk cathartic and emmenagogue of aloës, ferri sulphas and ext. hyoseyami. Next day, finding the pains aggravated, with no good results, I requested an opportunity to examine the case *per vaginam*, which after some hesitation was accorded.

Upon examination, the first thing that met my touch was the meatus urinarius projecting prominently beyond the labia. Between the labia I found an oval tumor, yielding a fluctuating feel to the finger; beyond this my finger could not pass, but by tracing its outline I found the tumor to be simply an imperforate hymen, which I presumed was distended by menstrual fluid, and that the uterus was making an effort to discharge still more, which was prevented by the distension of the vagina and the unyielding hymen. I therefore determined to perforate the membrane at once, which I did by means of a crucial incision. This was followed by a discharge of about a pint of dark, offensive blood—the accumulation of about a year, as I became satisfied by further inquiry. The membrane was about two lines in thickness. It is needless to say the operation gave complete relief at once.

I mention this case as one not very common in our practice. I should have stated that the rectum and bladder were evacuated before the operation, to guard against any possible danger to them.

Yours respectfully,

H. C. ROBBINS.

Dement, Ill., May 30th, 1866.

Health of Philadelphia.—Previously to every epidemic of cholera which has prevailed in this city, an epidemic condition of the atmosphere has always manifested itself in an increase of deaths from bowel affections. No such condition of things seems to exist at the present moment. The whole number of deaths from cholera infantum, diarrhœa and dysentery, for the week ending May 26, was only six, in a mortality from all diseases of 238.—*Medical News and Library.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

MARCH 12th.—*Great Engorgement of the Lungs, with Edema—Death—Autopsy.*—Dr. ABBOT reported the case. Was called suddenly a few evenings before, at 10 o'clock, to see Miss ———, aged 36 years, a dress-maker by trade, who was said to be in an alarming condition from sudden indisposition. Saw her in fifteen minutes, having met on his way a messenger despatched to hasten his steps. On his arrival he found the patient sitting in bed supported by her friends, with a basin before her containing two or three ounces of frothy sputa faintly tinged with blood, throwing herself from side to side in the most urgent distress, and begging most piteously for help. Another basin contained vomited matters, consisting of food, with considerable bile and traces of blood. Her countenance was intensely livid, as much so as in the collapse of Asiatic cholera, her lips slate color, her hands icy cold, pulse almost imperceptible, and her skin bathed in perspiration. Her appeals for immediate relief were so importunate that it was difficult to obtain any very definite idea of the special nature of her attack. The friends stated that she had been regarded for some time by her physician as the subject of disease of the heart. Her complaint at the moment, however, was not of dyspnoea, but of a general feeling of indescribable distress, most aggravated at the epigastrium. An occasional cough produced a rattling in the throat, but there was very little expectoration. A hurried examination of the heart, the patient being almost constantly in motion, detected no abnormal sound. A rapid exploration of the back showed that the air penetrated to the base of both lungs, but that the respiration was very peculiar. It had a remarkably hoarse character, and yet suggested the idea of air passing over a moist membrane; none of the character of genuine bronchial respiration. No true rales were detected anywhere. The restlessness of the patient and the extreme urgency of the case did not admit of prolonged or very exact auscultation. As soon as it could be prepared a stimulant, hot whiskey and water, was brought, but the patient suddenly fell back dead at the moment it was presented to her lips. She died instantly, respiration and circulation seeming to stop together and at once. Immediately there poured from the mouth and each nostril a stream of white froth which resembled nothing so much as the overflow of an ale bottle. This continued, requiring constant removal so long as Dr. Abbot was in the house.

On subsequent inquiry it was learned that the patient had been for several years in rather delicate health, being subject to faint turns accompanied by vomiting. Frequently on entering the house she had been obliged to rest before going up stairs. She had been under treatment at the Boston Dispensary several times during the previous three months. Her physician arrived before Dr. Abbot left the house, and stated that he had found signs, as he thought, of tuberculosis at the summit of the lungs, and there had been some interruption to the catamenia; for this condition he had prescribed cod liver oil and a

preparation of iron. He had not detected any disease of the heart. The history of the present attack, as learned from the sisters of the deceased, was as follows:

The patient occupied a room by herself at the west part of the city, being employed much of her time in sewing at a place some distance from her lodgings. On Thursday, the first instant, she went to her work, as usual, but feeling unwell left at noon and returned home. She did not, however, confine herself to the house, but busied herself about her affairs during the afternoon, and was a considerable time out of doors, the weather being disagreeable and chilly. She passed an uncomfortable night, and had cough for the first time on rising the next morning. She felt so poorly that she was unable to kindle a fire in her room, but sat alone until midday, enveloped in a shawl, although the day was cold and threatening a storm. In the evening she was found by her sister in a miserable condition, exhausted by a frequent cough, with vomiting at times. She was unwilling she should remain where she was during the night, and persuaded her to accompany her to her own lodgings at a distance of perhaps half a mile. This she did on foot, although the ground was covered by an inch or two of fresh-fallen snow, and the snow was still falling. Her path led her up the steepest side of the highest hill in the city, and on her way she was obliged to rest on a door step for a while on account of a feeling of faintness which was accompanied by vomiting. With some effort she succeeded, however, in reaching her journey's end on foot. It is somewhat remarkable that she did not complain especially of dyspnoea when climbing the hill. She reached her sister's room at about nine, P.M., only an hour and a quarter before she died.

Autopsy sixty-two hours after death. As the weather had been cold since the patient's death (the temperature being most of the time near the freezing point), and as the outer air was admitted freely to the room, and a large mass of ice had been kept on the body, there was no sign of decomposition. Considerable deposit of fat under the skin, the body generally showing no indication of emaciation. On opening the chest, the right lung was found everywhere firmly attached to the chest by old adhesions, and the lobes of the lung were also firmly adherent to each other. There were two or three ounces of bloody serum in the right thoracic cavity. The lung throughout had a firm, fleshy feel to the touch, and did not crepitate anywhere on pressure, except a small portion of the upper part of the upper lobe. When cut into, it was of a deep red color throughout, and the cut surface everywhere poured out a copious frothy serum, slightly reddened. The left lung was in a similar condition to the right, although the adhesions to the thoracic walls were much less extensive; the lobes were closely adherent to each other. The pulmonary tissue was somewhat less red than that of the right lung, and pressure produced moderate crepitus throughout, although the lung had a good deal of the fleshy feel of the right. No tubercles were seen anywhere, although special search was made for them at the summits of both lungs, where they had been thought to exist by the patient's physician. A single cretaceous body, about the size of a raisin-seed, was found on the surface of the left upper lobe towards the base in front.

Heart.—The heart was contracted and empty, its only contents being a few fibrinous shreds hanging about the chordæ tendineæ of the

tricuspid valve. There was nothing whatever abnormal in its structure.

Abdominal Viscera.—The liver was of a deep red color, seemingly crowded with blood, and the kidneys were in a similar condition, presenting no other abnormal appearance. The spleen was apparently healthy. The other abdominal and the pelvic viscera presented nothing unusual in their appearance, but were not specially examined.

Dr. Abbot said he was induced to report this case somewhat in detail because on a former occasion, when the subject of congestion of the lungs had been under discussion, some members of the Society had expressed themselves as exceedingly skeptical on the subject of this disorder, some even going to the extreme of almost questioning whether there were such a morbid condition. It certainly is a complaint of which very little mention is made by medical writers under this name, although it is an expression in very common use both in and out of the profession. Although he doubted very much the accuracy of the diagnosis which ascribes in the weekly mortality tables the decrease in so many instances to congestion of the lungs, he could not but think that there is such a disease, although rare, and could not help regarding the case reported as an instance of it. The special symptoms which inclined him to this view were the absence of moist râles during life, the penetration of the air throughout the lungs, and the slight expectoration, with the bloody tinge which it presented. At the same time it must be admitted that during the few minutes that elapsed before the death of the patient, after his arrival, there was no special complaint of dyspnœa, although she was evidently dying of asphyxia; the distress was referred wholly to the epigastrium. Neither had there been any particular complaint during the fatiguing walk just before, except of weakness and nausea. The solidification of the lung was undoubtedly due to the *post-mortem* effusion of serum, which, as has been stated, showed itself by unmistakable signs immediately after death. Is it not probable that the peculiar modification of the respiration was due to the crowded condition of the bloodvessels of the lungs, which poured forth a copious exudation at the moment of dissolution, just as the cutaneous surface sometimes pours forth a profuse perspiration in syncope?

Dr. ELLIS at a previous meeting had expressed his doubts concerning the character of the cases so frequently reported as *congestion of the lungs*, and he repeated the remarks made at that time, though he did not consider them entirely applicable to Dr. Abbot's case.

The conclusion that such congestion exists is based upon phenomena noticed before death and upon *post-mortem* changes.

The symptoms upon which stress is principally laid are, dyspnœa and râles diffused throughout the chest. These are met with under two principal conditions; first, as the closing manifestations of protracted disease, the tendency of which is to produce dropsy; second, in the midst of health, when they are developed with astonishing rapidity, and may soon terminate in death.

In the first class of cases, the heart may or may not have been affected, but as soon as râles are detected in the lungs, pulmonary congestion is announced and supposed to be the cause of death, which soon follows. Now these râles indicate only the presence of fluid in the air-passages, and, although disease and direct experiment show

that obstruction of the circulation *may* give rise to effusion of serum, it is perfectly well known that the same may take place *without congestion*, and we have learned at autopsies that the latter may be so extreme as to terminate in pulmonary apoplexy, with little or no escape of serum; and, even in those cases of cardiac disease where the pulmonary vessels are for many months crowded with blood, it is only towards the close that œdema supervenes. Congestion may be the primary cause, but râles are not sufficient to prove it.

In the second class of cases, the symptoms are the same, but all other conditions are changed. We have the same widely-diffused râles and urgent dyspnoea. Consequently it is assumed that the pulmonary vessels have in some inexplicable manner become congested, and that the other manifestations are simply the consequences of these. We can only say that the question cannot be regarded as settled as long as we have reason to believe that congestion is not necessary for the production of œdema. It is as difficult to accept primary congestion as it is to accept primary œdema. The reserved or perverted power of the tissues is sufficient to explain a sudden formation or excess of that watery fluid, with a certain quantity of which they always provide themselves.

If we must assign some position to such cases, it does not seem improper to class them with *capillary bronchitis*, which they at least closely resemble, and of which the reported lesion is fully adequate to produce the observed phenomena.

In regard to the *post-mortem* changes, too much caution cannot be used in interpreting them. It is impossible to describe in words appearances which necessarily indicate morbid congestion. The blood-vessels in all parts of the body of a healthy person dying after a short illness contain a much larger amount of blood than those of patients who have yielded to protracted and wasting disease, and every hour that elapses after death increases the danger of deception, by favoring physical changes which it is often extremely difficult to appreciate.

It appears, in addition, to be quite evident that the marked œdema which is so often cited as a proof of congestion cannot be accepted as such without great reservation. We must also remember that this same œdema may, by obstructing the entrance of air, actually cause the congestion.

Without, therefore, denying the existence of congestion of the lungs as a disease, it may with propriety be maintained that its phenomena are very incompletely understood, and that the readiness with which it is dignified and announced as a cause of death cannot be too much deprecated.

JAN. 22d. — *Permanent Dislocation of the Patella outwards.* — The patient, a boy aged 14-15, was presented to the Society by Dr. COOLIDGE, who gave the following history of the case:

Three years ago, while skating, he fell on the ice, striking his knee. After half an hour was able to continue skating. He perceived nothing unusual for the next two or three days; his knee then became swollen and painful, and he was obliged to go to bed, where he remained five months. His knee was poulticed and leeches. When he got up, his knee presented its present appearance. The patella is dislocated outwards, its external facet apparently resting on the external condyle, tilting the internal border forward. The groove between the

condyles can be easily felt. The ligamentum patellæ stretches upwards and outwards, and keeps the point of the bone fixed. It is narrower than on the other side, as if it had been partially ruptured. The deformity is greater on flexion than on extension. The only muscle which seems to contract with any energy in walking is the vastus externus. It is difficult to say how much the connection between the vastus externus and rectus and the patella has suffered. There is to the touch an indistinct transverse groove above the patella, as if there had been a partial rupture there.

The patient complains of nothing but a slight limp in walking, which prevents his getting a situation he desires. He wants to have the patella put back. It is, however, firmly kept in its present position. The attempt at reducing it is not considered justifiable.

Permanent dislocation of the patella is so rare an accident that two plaster casts of the knee were taken and were deposited in the Medical College Museum.

It is reported that Dupuytren in his lifetime met with but three dislocations of the patella; Boyer with one; Sir Astley Cooper with one; Liston with none. Malgaigne has collected (1855) 25 outward dislocations, two of which he saw himself.

MARCH 12th.—*Urinary Calculi*.—Dr. WARE exhibited specimens of urinary calculi taken from the bladder after death. They were removed from a gentleman 65 years of age, who called upon Dr. Ware eighteen months since with retention of urine from an enlarged prostate. He was relieved, and taught to pass the catheter, which he was occasionally obliged to do for himself from that time forward. In November last, Dr. Ware was called to see him, and found him in great pain from retention, with inability to pass the catheter, the attempt to do which had been followed by blood. He was relieved at the time; but as his symptoms indicated calculus, he was carefully examined for stone, under the influence of ether, by Dr. Ware and Dr. Cabot; no evidence of stone was discovered. As the pain continued, accompanied by copious discharges of bloody mucus and pus, it was regarded as a case of inflammation of the bladder, probably malignant, although the microscope gave no evidence of malignancy. The pain was so severe as to require him to be much of the time under the influence of ether. He gradually sunk and died.

At the autopsy, there was found intense inflammation of the mucous membrane of the bladder, with quite extensive ulceration. There was great enlargement of the prostate gland. There were also found in the bladder four calculi of very irregular form, with sharp angles and very rough surface. Their character showed that they had been formed for the most part since the inflammatory process had been set up in the bladder, as they are the products of inflammation. If they existed at the time of the examination, they were probably pouched behind the prostate and escaped observation.

Dr. J. C. WHITE made the following report as to the weight and composition of the stones, viz.:—"The weight of the large stone is 160 grains, and of the four small ones, 45 grains. They are composed of urate of ammonia, urate of soda, triple phosphate of ammonia and magnesia, and uric acid."

MARCH 26th.—*Death resulting from the rupture of an old Adhesion*
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between the Intestines and a Tumor of the Uterus.—Dr. READ reported the case as follows :—

“ Anne W., colored, married, æt. about 30, was supposed to be about eight months pregnant, and had not been conscious, from any symptoms of pain or otherwise, that she was in any way ill. A few days before her death, on one of the cold days in the second week of March, she went with her husband to the State House on business, and got one of her feet chilled almost to being frost-bitten, but from the effects of this she had recovered. On the evening of the day previous to her death she had a slight headache, which did not, however, prevent her keeping about the house, nor eating her dinner with as much relish as usual. After dinner (perhaps half an hour), her husband came to the house where she was, and was alone with her for half an hour. Almost immediately on his leaving her—he had hardly got into the street from the house—she complained of a “dreadful feeling at the stomach,” called for a vessel, and began to vomit. This kept up, with sharp pains in the epigastrium, until about 5, P.M., when Dr. Damon saw her. All attempts to control the vomiting and pain were fruitless, from the impossibility of the stomach retaining anything. At Dr. Damon’s request, I saw her with him, about 7, P.M. She was lying on the floor, on a bed, rolling in agony. A vessel at the side of the bed was about half full of very thick, ropy mucus, largely mixed with a coffee-colored material, in small bits about the size of a flax-seed. Her extremities were cold, and the pulse could not be felt at the wrist. At my suggestion, in consideration of the irritable condition of the stomach, one fourth of a grain of morphia in solution was injected into the right arm just above the elbow, for the purpose of alleviating the pain and disposition to vomit. This had the effect to abate the severity of the symptoms, and she made but one ineffectual attempt to vomit after its administration. In the course of half an hour, another injection of the same quantity was thrown in. Under the effect of both, the pulse came up strong and quick. She grew warm, and finally subsided into a comparatively quiet sleep. She was then left. The next time I saw her, at about 8, A.M., the day afterwards, she was moribund.

“The peculiarity of the symptoms and the suddenness of the seizure, together with the fact that she was alone with her husband, who had shown himself very indifferent to her comfort, and had for some time consorted with disreputable females, seemed to point to a cause beyond what would ordinarily be met with, and, with Dr. Damon’s concurrence, the case was put in the charge of Coroner Underwood, by whose authority an autopsy was made, which revealed the cause of death. The examination was made by Dr. C. W. Swan, from whose minutes of the case I have copied the following :—

“Peritoneal cavity contained at least two quarts of a watery, gruel-like fluid, containing soft, dull, whitish, curdy or pulpy masses and flakes, and having a strong fecal odor. There were no masses of lymph or general adhesions of intestines and other organs to each other; but the omentum and whole peritoneum was of a dull uniform slaty or ashen gray color, without vascularity. Uterus small; attached to its fundus posteriorly, was a firm, rounded tumor, five inches in diameter. It contained a considerable, irregular cavity, in which was a separable, broken up, but coherent series of masses, of a blackish chocolate

color, resembling old putrid hard coagula of blood. At the upper and posterior side of the cavity, the walls were so thin as to be in two places perforated by two considerable openings, and to this point or region several folds or knuckles of the ileum were attached by blackish and not very firm false membranes. The omentum was also attached in a similar manner to the tumor. On separating the attachments with a knife, intestinal gas escaped, although the intestines had not been divided by this operation. The adhesions of the ileum were as follows:—two and three feet respectively, above the valve, discolorations but no perforations; nine feet above the valve, blackish discolorations and two perforations, rounded with smooth edges, one fourth and one eighth of an inch in diameter respectively, and one fourth of an inch apart, apparently not recent. About a foot from these perforations was a pair of discolored circular cicatrices, with some puckering of the surrounding mucous membrane. They were about one fifth of an inch in diameter.

“It is inferred, from these appearances, that the intestines had communicated for some time with the cavity of the tumor before the rupture of the adhesions in the vicinity occurred, which allowed the escape of the intestinal contents into the abdominal cavity which is regarded as the more immediate cause of death.”

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 21, 1866.

POISON ON DRAUGHT.

THE occurrence of two cases of poisoning by the drinking of a strong solution of cyanide of potassium by mistake for iced water in this city within a few weeks, reveals a carelessness on the part of those who use this and similarly deadly substances which demands public attention. The first instance was recorded in a recent number of this Journal. A porter in a machine-shop, feeling thirsty dipped a tin cup into a jar of liquid, which he supposed to be water, and swallowed about three drachms before he discovered his mistake. In two minutes he became senseless, and was taken to the hospital, and, strange to say, after an emetic, the use of the stomach-pump and of ammonia, he recovered, for the amount of the poison swallowed was estimated at twenty-three grains, and thirty-five minutes elapsed before any of the remedies took effect.

The other case occurred a few days ago under similar circumstances. A thirsty man, a stranger amongst us, went into a jeweller's shop, and asked for a drink of water. He was directed to the rear where the sink was situated. Seeing a large covered stone jar standing near it, such as is often used for holding ice-water, he lifted the cover and drank, without stopping to look at it, about about half an ounce of the liquid. He became insensible in five minutes. It was found impossible to administer an emetic of sulphate of zinc in the apothecary's shop, whither he was at once taken, or later to use the stomach-pump at the hospital. He died in thirty minutes after drinking what

he supposed to be a harmless draught of water. The liquid was a solution of cyanide of potassium in water, of the same strength as that swallowed in the first case, a pound to the gallon. The quantity taken was therefore about half a drachm of one of the most deadly poisons known, of which two or three grains are sufficient to kill a large animal, and five grains have destroyed human life in several instances. The prolongation of life in this, and the wonderful escape from death in the former case, were undoubtedly in great part owing to the fact that the stomach was filled with food, and that on this account the poison was not so rapidly converted into hydrocyanic acid and absorbed.

No coroner's inquest was held, we believe, but the case certainly was worthy of official inquiry, and although there was no doubt of the cause of death in this instance, and the circumstances were well understood, the opportunity should not have been lost of a public exposure and reprimand of such culpable carelessness. This preparation is largely used in the arts, and we doubt not that an investigation would show that this and other deadly poisons are to be found in scores of places in this city under circumstances which haste or ignorance, or a mere accident, might convert into a similar tragedy. The excuse that one should not be foolish enough to drink liquids from glasses and vessels without knowing what they contain, in no way justifies or palliates such occurrences. They can be prevented by the use of significant labels and by lock and key, and those who do not observe such proper precautions, should be held responsible for the results of their criminal indifference to human life. We are far too lax in our police regulations respecting the use and sale of poisons, and if the same energy which is exercised in the enforcement of the liquor and Sunday laws were turned in this direction, much good would result.

Messrs. Editors,—I send you a piece of a root supposed to be wild parsnip, and the account of a case of fatal poisoning by it.

A little girl, aged ten years, dug up at the side of a drain on the bank of a river, what was supposed to be wild parsnip, and ate part of it. This was about 11, A.M. At half past 12, P.M. she ate some milk. Soon afterwards she vomited, threw up the milk and small masticated portions of the root. She was then attacked with violent convulsions. Dr. Pierce was immediately sent for. He gave her an emetic, that soon operated. At 2, P.M., when I was called in consultation with Dr. Pierce, she was having almost constantly general convulsions. She had bit her tongue badly, and blood and mucus were running from her mouth. The convulsions resembled those of strychnine, with the exception of a want of consciousness and regular intervals between the paroxysms. The convulsions were so powerful that it was difficult to keep her on the bed. Her pupils were dilated to the greatest extent; in fact there did not seem to be any iris. Her extremities were cold, her pulse very rapid, varying from 130 to 160.

Two drops of croton oil were placed on her tongue, which soon operated. We gave her injections of assafetida and brandy, and put her into the warm bath, where she appeared a little easier. Her convulsions continued till 5, P.M., when they entirely ceased, and she could swallow. Brandy was given her every fifteen minutes, and she

once called for water. At 8, P.M. she was attacked as violently as before with convulsions. At this time her pupils were very much contracted. The muscles of deglutition, respiration and the diaphragm began to be much affected, and the respirations were very quick. She died asphyxiated, at 7 the next morning.

Winchester, N. H.

SAMUEL P. FRENCH.

Death of Dr. Stedman.—Dr. Stedman, whose sudden death we announced last week, was born in Lancaster, of this State, on the 17th of June, 1805, and was consequently nearly sixty-one years of age. After completing a good elementary education at the best schools in the State, he studied medicine in Boston under the pupilage of Drs. James Jackson and Walter Channing, and received his medical degree from the Medical School of Harvard College, in 1828, having attended the usual number of courses of lectures by the professors of that university. Soon after taking his degree, he was appointed Surgeon and Superintendent of the United States Marine Hospital at Chelsea, and subsequently was Physician and Superintendent of the City Lunatic Hospital at South Boston, for several years, and at his decease was one of the Visiting Surgeons of the New City Hospital.

Notwithstanding his duties as a physician, he found time to devote himself to other occupations, and in 1855 served the city as a Senator in the Legislature of Massachusetts, and in 1856 and 1857 as a Councillor for the County of Suffolk; since which time he has assiduously devoted himself to the practice of his profession. In all matters relating to mental derangement he has for many years been considered an expert, and consequently has been frequently consulted in legal cases where doubts of sanity existed.

In the decease of this gentleman, the profession will feel a deep loss, and many of our poor citizens will miss a good friend.—*Sunday Times.*

The Portability of Cholera.—Although cholera is not contagious, it is portable, or at least its cause is. On this point will turn the wisdom or propriety of quarantine; and if I enter somewhat into detail in stating the facts which bear upon it, you will suppose that I am influenced by a desire that you should understand the question fully, and not prejudice it on the statements of those who have lost faith in this preventive measure, while at the same time you acquire additional information regarding the habits of the disease. From our very first knowledge of cholera we have been familiar with the fact that it has marched from its home in the East along great travelled roads; that it has kept time with the movements of travel, or at least has not out-marched it; that it has followed the lines of commerce; that it sometimes attaches itself to armies and follows the course of their march over a large district of country, attacking certain towns and villages, and not attacking others in their course—thus discriminating because the conditions necessary for the regeneration of the poison exist in one and not in another. It has marched with caravans of pilgrims. Pilgrims from Mecca brought the disease into Egypt; and from Egypt it spread into various parts of Europe last year. It has marched with pilgrims from the East into Arabia. Indeed it is very

generally asserted throughout Europe that only in isolated and exceptional instances is it found out of the line of travel and commerce ; while Pettenkofer holds that no instance of supposed spontaneous origin will bear the test of close examination ; that it always and everywhere in Europe originates in the action of choleraic evacuations upon the soil, these being discharged by a person arriving from an infected place, or by such a person travelling and leaving the noxious secretions on his way.

But the mode in which the disease crosses broad waters is more instructive. How, for example, did it first reach England ? That country is separated from the continent by waters quite too broad to permit the wind to carry the poisonous principle from shore to shore ; and as a matter of fact, the disease has first appeared there in regions where the sea is of the greatest width. The very first point invaded on the shores of England was Sunderland, near the parallel of 55°. To this place it was brought by trading vessels. The points where it has made its attack in every epidemic in England, except one, have been upon the eastern coast, and at one or other of the principal commercial towns, Hull, Sunderland, Newcastle ; and in each instance the first cases occurred after the arrival of infected vessels. The same is true of its appearance at Edinburgh in Scotland, and at Dublin and Belfast in Ireland. It generally appeared in London only after it had made a landing in those more northern cities. In one instance, in the autumn of 1853, it occurred first in Liverpool, and a few days after at Newcastle, on the opposite coast. It occurred in Liverpool among the German emigrants who had just been landed there from Hamburg, where the disease was at the time prevailing. It was clearly carried there ; it was in the ship during its passage from Hamburg to Liverpool. It soon became mildly epidemic in Liverpool, waiting, however, for the next warm season to become severely epidemic. Then it has crossed the Atlantic, and how ? At one time it was fashionable to assume that the cholera marched by a certain steady progress ; that it was caused by a great morbid wave rolling slowly and steadily eastward, and that it would envelop place after place at pretty regular intervals ; but this opinion does not bear very close inspection. In its movements in India, at first its progress was about twenty-one miles a week ; in its movements from the delta of the Ganges to Canton in China, going eastward, it travelled little more than ten miles in the week ; when it reached Europe its progress was estimated at a greater speed, eighty or a hundred miles in the week ; but a hundred was the highest figure assumed to represent its progress. Now dating from the time when cholera first appeared at Sunderland, in 1831, to the time when it first reached Quebec, and then New York, the rate of progress would hardly be greater than that indicated by the highest of these figures ; but in subsequent epidemics it has crossed the ocean at the rate of three hundred and fifty miles and four hundred and fifty miles a week. Then, too, it appeared in England before it assailed the region intervening between Hamburg and the British Islands ; and the question arises, if it depends solely upon such atmospheric wave, why were these intermediate places exempted ? Again, when it came to this country, it first appeared at Quebec and Montreal. If that wave had rolled across the Atlantic, and so reached these cities, it must have passed directly

over Nova Scotia, New Brunswick, and the northern part of Maine ; and yet no disease was found there until long after it had made its way to New York, and thence spread in various directions. But we find that the brig *Carricks*, and another vessel bringing emigrants to Canada, reached Gros Island, the quarantine grounds of Quebec, and thirty-nine miles below it, on the 3d June, 1832, having cholera on board, and that the emigrants of these vessels were taken by a steamer from the quarantine grounds ; that some of them were landed in Quebec and some in Montreal ; and in two days from the time this steamer reached each of these cities, that is, on the 8th and 10th of June, the disease broke out in those towns ; and that it gradually spread to become a severe epidemic.—*Extracted from Prof. Clark's Lectures on Cholera, in New York Medical Record.*

The Annual Meeting of the New Hampshire Medical Society was held in Hanover on the 5th and 6th of June, 1866. The officers for the ensuing year are :—*President*, R. P. J. Tenney, M.D., Pittsfield ; *Vice-President*, A. H. Robinson, M.D., Concord ; *Secretary*, Nathan Call, M.D., Suncook ; *Treasurer*, Thomas Wheat, M.D., Manchester. *Delegates to other State Medical Societies* :—To Massachusetts, Dixi Crosby, M.D., Hanover, P. A. Stackpole, M.D., Dover ; to Rhode Island, N. W. Oliver, M.D., Portsmouth, A. H. Robinson, M.D., Concord ; to Connecticut, L. M. Knight, M.D., Franklin, S. L. F. Simpson, M.D., Concord ; to New York, J. P. Bancroft, M.D., Concord, G. A. Crosby, M.D., Manchester ; to Vermont, Dixi Crosby, M.D., Hanover, John Clough, M.D., Lebanon ; to Maine, L. G. Hill, M.D., Dover, T. J. W. Pray, M.D., Dover ; to New Jersey, E. K. Webster, M.D., Boscawen, L. C. Bean, M.D., Lebanon.

N. CALL, *Secretary of the N. H. Medical Society.*

Suncook, N. H., June 16th, 1866.

Medical Intelligence.—A recent number of Virchow's Archiv contains an account of the discovery, during amputation of a cancerous breast, of trichinae in the underlying muscular tissue. On microscopic examination the entozoa were found free and encapsuled, and alive. From the history of the case it appeared beyond a doubt that the invasion took place in 1842, or 24 years ago, at which time two members of the patient's family died with symptoms like those under which she also then suffered. This is the longest time on record that these entozoa have been known to exist within their human host. The investigations conducted by the commission of the Chicago Academy of Sciences, which are entirely reliable, revealed the fact that of 1300 hogs examined, 25 contained trichinae, or more than two per cent. This proves that we cook our pork more thoroughly than the Germans.

A new element has been introduced into clinical instruction in Vienna. At the request of Prof. Oppolzer, Dr. Stricker, assistant of Prof. Brucke, has been appointed Adjunct to his clinic, and will have charge of all matters relating to physiological pathology, pathological chemistry and microscopy.

M. CHARRIERE, the celebrated Paris surgical instrument maker, has disposed of his establishment to MM. Robert and Collin, formerly his pupils.

The University of Edinburgh has conferred the honorary degree of LL.D. upon Prof. Huxley, Hunterian Professor in the College of Surgeons, and Dr. Rae, the well known Arctic explorer.

The following is a list of the present professors of the Paris School of Medicine:—Medical Natural History, Baillon; Physiology, Longet; Accouchements, Pagot; Therapeutics and Materia Medica, Trousseau; Legal Medicine, Tardieu; Pharmacology, Regnaud; Surgical Pathology, Gosselin; Pathological Anatomy, Laboulbène; Medical Pathology, Behier; Hygiene, Bouchardat; Clinical Medicine, Bouillaud, Guillot, Grisolle and Piorry; Clinical Surgery, Dolbeau, Langier, Velpeau and Nélaton; Clinical Midwifery, Depaul; Diseases of Skin, Hardy; Diseases of Children, Roger; Diseases of Eye, Foucher.

A prize of 50,000 francs is offered by the French government for the discovery of the most important application of the voltaic pile to industrial and scientific purposes. Competition is offered to all nations, and the claims will be examined in five years.

The destruction by fire of the University Medical College of New York, with the valuable Museum of Dr. Mott and the collections of the Lyceum of Natural History, and the burning of a large part of the newly-formed and extensive collections of the Chicago Academy of Sciences, should turn the attention of the custodians of other museums to the condition of the buildings under their charge. They should be made fire-proof as far as possible, or fires should only be allowed in those portions of the building which are thus protected.

Dr. Freeman J. Bumstead has been appointed Professor of Materia Medica and Clinical Medicine, to fill the vacancy caused by the death of Prof. Joseph M. Smith, in the College of Physicians and Surgeons, New York.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 16th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	42	46	88
Ave. mortality of corresponding weeks for ten years, 1855—1865	35.8	35.7	71.5
Average corrected to increased population	00	00	77.98
Death of persons above 50	0	0	0

ERRATA.—Two important typographical errors were made in Dr. Bowditch's article on Aneurism, in our last number. *First.* In the account of the previous health of the patient, instead of pains in the "throat," read *thorax*. *Second.* Instead of making Hippocrates suggest "dry lint" in the treatment of varices, it should be *dry diet*.

DEATHS IN BOSTON for the week ending Saturday noon, June 16th, 88. Males, 42—Females, 46. Aneurism, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 2—burns, 1—cancer, 1—consumption, 26—convulsions, 1—croup, 2—debility, 2—diarrhœa, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 1—scarlet fever, 2—typhoid fever, 1—recto-vesico-vaginal fistula, 1—gangrene, 1—disease of the heart, 4—malformation of the heart, 1—hip disease, 1—infantile disease, 4—intemperance, 1—disease of the liver, 1—inflammation of the lungs, 2—marasmus, 4—old age, 1—paralysis, 3—premature birth, 1—puerperal disease, 2—scrofula, 1—smallpox, 1—ulcer, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 5—between 20 and 40 years, 22—between 40 and 60 years, 13—above 60 years, 17. Born in the United States, 57—Ireland, 25—other places, 6.

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THURSDAY, JUNE 28, 1866.

No. 22.

LECTURES ON HERNIA, GIVEN AT THE CITY HOSPITAL, BOSTON.

By DAVID W. CHEEVER, M.D., one of the Visiting Surgeons, and Assistant Professor of Anatomy in Harvard University.

[Communicated for the Boston Medical and Surgical Journal.]

No. II.—*On the Differential Diagnosis, and the Operations formerly proposed for the Cure of Hernia.*

WE have previously spoken of the means of distinguishing femoral from inguinal hernia. To distinguish between an oblique and a direct inguinal hernia, when recent, is easy; the older the ruptures, the more difficult the differential diagnosis becomes; for the inguinal canal grows shorter and shorter under the pressure of the hernia, until, in an oblique rupture, the rings are dragged opposite each other. Of course the relation of the hernia to the epigastric artery remains unchanged; but whether for taxis, or for operation, it makes but little difference to which kind such a hernia originally belonged. The taxis is almost directly backwards in these old cases; and in a strangulation we cut the stricture upwards, and would be equally sure to avoid the artery, whether it lay inside or outside the hernial sac.

Atrophy of the testis and varicocele are very common accompaniments of these long-continued ruptures. When, however, we want to diagnosticate hernia as hernia, or to distinguish it from other things, we need to seek for and use every means of diagnosis.

Hernia is diagnosticated, in the first place, by the impulse communicated to the hand, placed on the tumor, by coughing, or any expulsive effort. There is a false and a true impulse. The false impulse is that shock given to the hand placed over the inguinal region of a healthy person, and is due to motion communicated to the walls of the abdomen. The true impulse is a very different sensation. It is of a peculiar thrilling character, feeling like a shock transmitted through air and water. No words can describe a sensation accurately; but this impulse is also peculiar in being dilating and diverging. The tumor may be seen to dilate on coughing; and if we place two fingers on it, a little distance apart, they will diverge and separate from each other with every impulse.

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One of the first things the patient notices is a bulging opposite the internal ring, in ordinary, oblique hernia. This may be accompanied with a feeling of something having given way, if the rupture be produced by violence, and the funicular process entirely closed.

It is, of course, in this early stage that the hernia is most amenable to treatment; but it unfortunately often happens that the rupture comes on so slowly and insidiously that the patient does not observe it until it has descended into the scrotum.

One of the first questions we ask the patient is, whether the tumor disappears on lying down. This is not only a diagnostic mark of hernia, but important as showing whether it be reducible or not; and it must be borne in mind that an adherent sac, or a small piece of omentum adherent to the sac, may be irreducible, and leave a small permanent tumor after the bulk of the rupture has been returned.

A hernia always grows from above downwards also, which distinguishes it from enlargements beginning in the scrotum.

Varicocele is perhaps oftener confounded with hernia than any other swelling; as before said, they often exist together. *Varicocele*, alone, is more common than hernia. Hernia is most frequent on the right side; *varicocele* on the left, from the peculiar distribution of the left spermatic plexus of veins. A *varicocele* may be very large; and, like hernia, it diminishes on the patient's lying down. The blood slowly flows back into the general circulation in the horizontal position. The feeling of the two tumors is different. Hernia is irregular, like the coils of intestine; and we can sometimes distinguish the convolutions through the skin. If omentum, it is soft and doughy in feel; if intestine, we have the yielding, bubbling sensation of air and water, and perhaps resonance on percussion. *Varicocele* is more rounded, and feels like a mass of irregular, but rather parallel threads or worms. Particularly if the patient be made to lie down, we can empty and distinguish the separate, dilated veins. We also often see varicose veins in the skin of the scrotum, in *varicocele*. Finally, there is no impulse in *varicocele* when the patient coughs.

Hydrocele, also, is very often confounded with hernia. In a true, typical *hydrocele*, formed in a closed tunica vaginalis, the diagnosis is not difficult; yet even here we may have hernia coëxisting, and lying on top of the *hydrocele*. A simple *hydrocele* is globular or pyriform in shape, and increases slowly from below upwards. It is usually transparent to transmitted light; but owing either to thickening of its investing sac, or to change in its contents, it is far from being transparent always in an old *hydrocele*. We can always feel the cord between a simple *hydrocele* and the outer ring. We find no neck to the tumor, losing itself in the inguinal canal, as in hernia. We have no impulse on coughing, and it slowly and steadily enlarges; and never recedes, or disappears, from changes in position. But if it be a congenital *hydrocele*, it runs up into the inguinal canal.

It slowly disappears, emptying itself into the abdomen, through the patent vaginal process of peritoneum, on lying the patient down, and it has a thrilling impulse communicated by coughing. Its transparency, its shape and feel, and the slowness with which it returns into the abdomen, or recurs in the scrotum on standing up, are the chief distinctions of a somewhat difficult diagnosis.

In a hydrocele of the cord we have a hard, cyst-like tumor on the cord, without impulse and without change of shape or position. But if the hydrocele of the cord extend into the inguinal canal, we may have some impulse and reducibility, from non-closure of the funicular process, at the inner ring. These cases are often sufficiently puzzling.

A *testis not descended* into the scrotum, and becoming arrested in the inguinal canal or at its exit, may simulate hernia—that is, hernia still a bubonocoele. The want of impulse, the glandular feel, the pain on pressure and the peculiar appearance of the scrotum, are usually enough for diagnosis. Sometimes, however, a late descent of the testis, complicated with hydrocele of the cord, or a rupture which may occupy the enlargement of the inguinal canal where the testicle lay, may render the diagnosis very difficult.

From *orchitis* (hernia humoralis) a rupture is distinguished by the history, acuteness, redness, inflammation and pain of the former, as well as the want of impulse and constant presence and increase of the tumor.

A *cancerous or tuberculous testis*, or one simply hypertrophied, may be mistaken for hernia; but we have the history, the gross appearances and the want of impulse to guide us.

From an *hematocele* we may distinguish hernia by the same rules, with the added fact of ecchymosis.

Various *tumors* may exist in the inguinal or femoral regions to mislead us. These are fatty and glandular tumors, and cysts. They also are distinguished from hernia by having no neck, being irreducible, with no impulse, and being more or less movable under the skin.

Finally, we have *deep, chronic abscess*. A pelvic abscess, the result of pelvic cellulitis, appearing in the groin, is distinguishable from hernia by the walls of œdema and lymph which surround it. A *psoas abscess* is more deceptive. It generally has a soft sac without lymph. It descends in the femoral region, beneath Poupart's ligament, but outside the femoral artery. Sometimes, however, it comes down inside the artery, and in the course of crural hernia. But after passing through the crural opening, it spreads out beneath the fascia lata into an irregular, fluctuating swelling, and does not take the direction of crural hernia, through the saphenous opening. An impulse is felt on coughing, which gives a peculiar thrill to the finger. The history, constitutional condition, and, perhaps, the ap-

pearance of the spine, ought to furnish some marks of distinction from hernia.

So common an infirmity as hernia has led men in all ages to attempt its radical cure. Therefore we shall find that from Celsus down, patients have been subjected to all sorts of operations; all useless, and many of them cruel and unjustifiable. These attempts at a radical cure consisted of, rest; compression; medicinal applications; incision; excision; canterization; ligature; the royal stitch; the punctum aureum; scarification; castration. There were another set, comprised in the present century. For convenience, we may divide all these operations into two classes:—1st. Those which deal with the sac alone; 2d. Those which attempt to cure by invagination.

The cure of hernia solely by *rest* has been tried, at intervals, from Fabricius to a recent date. In a report on it, in 1840, the following conclusions were arrived at:—that it is possible to cure hernia by the horizontal position long continued; that a diminution of the diameter of the canal and a restoration of its obliquity is obtained; but that the patient must be possessed of considerable vigor, and that it is inapplicable in old cases, where the canal is reduced to a mere ring.

With regard to *compression*, much can be done. Malgaigne expressed the opinion that all hernias could be cured if proper attention were paid to the truss. Experience inclines us to the opinion that pressure is very uncertain in its effect, and cannot be relied upon except in children.

All trusses made for the radical cure are convex in the pad, with a very stiff spring. If the pad be hard, as well as convex, it is thought that it tends to dilate the outer ring more than to excite adhesions. Influenced by this belief, Mr. Wood has constructed an original truss, which is not rounded, but flat in its pressure, and which has a slot cut part way to allow the free passage of the cord and vessels unobstructed. Whenever we have seen this truss used it has been effectual, and worn with great comfort. It is of the highest importance in infancy and early childhood that a congenital rupture should be kept out of the inguinal canal, in order to give the parts a chance to close. We believe that the chances of cure by truss pressure are in direct proportion to the youth of the patient. Two months of occlusion of the bowel from the inguinal canal in infancy will do more for a radical cure than two years later in life. In infants it is very difficult to keep a truss in place without chafing. In them, it seems to us, that a flannel spica bandage might be worn, made to take off by buckles, and having at its point of intersection over the groin some hard pad, like sheet lead, sewed into it. Several of these could be kept ready, so as to change when they became wet; or a still simpler means might be employed, by retaining the rupture with a strip of isinglass plaster, which could be easily

changed. The early and continuous treatment of umbilical hernia is of equal importance.

Almost every form of *medicinal application* was employed in the days of polypharmacy for the cure of rupture. Claudius gives a cerate of thirty-three ingredients, four of which were the blood of dragon, goat, man and bat. These, of course, are mere matters of curiosity.

Incision of the sac has been practised as late as 1832, when Larrey made an unfavorable report on it. *Excision* of the sac was done by Celsus, and in the middle ages.

Cauterization, though carried to a barbarous excess, really effected some cures. Repeated applications of the actual or potential cautery were made until the parts were destroyed down to the bone, and the pubes denuded of periosteum; when, after exfoliation, a contracting cicatrix became firmly adherent to the bone.

The ligature was used by Celsus, Paulus Ægineta and others, and consisted in dissecting out the sac and tying it below the ring, usually sacrificing the cord and testis.

The royal stitch was a modification of this, by which the testis was saved; and was so called from its saving subjects to the king.

To Ambrose Paré is due the *punctum aureum*—a more philosophic method—by which the sac was obliterated without injuring the cord. An incision having been made down to the sac below the ring, a golden wire was passed twice around it, and tightened, moderately, for three days. It was then cut short and left in the wound, which cicatrized over it.

Scarification of the sac has been done in older and more recent times, without injury.

The abominable practice of *castration* to cure rupture was done largely. The sac and testis, having been exposed, were torn from the scrotum, producing excruciating pain; and the sac was tied with a ligature. Other surgeons tore out the testis and concealed it quickly, that the bystanders might not see it. In 1710, a man was sent to the galleys for operating by castration; and in 1735, a woman was public whipped at Rheims for the same offence. Yet so late as 1799, in France, castration for rupture was practised by charlatans; and the Bishop of St. Papoul found five hundred in his diocese so mutilated.

Græfe's operation, described in Berlin so late as 1813, is almost as hazardous and rough. It consisted in dissecting out the sac and cutting it off just below the ring, and then inserting a plug of lint, rubbed with some irritating ointment, into the inguinal canal. A much more reasonable mode was that of concluding the operation for strangulated hernia by fastening a portion of omentum into the inguinal canal. Both Cooper and Velpeau succeeded in this manner in securing a radical cure.

Schuh, of Vienna, Rattier and Moesner, all operated by *setons*.

Belmas performed two very complex operations for a radical cure. The first consisted, essentially, in introducing a bag of gold-beater's skin into the sac of the hernia; the second mode was by inserting filaments of gelatine, as setons, into the sac. There were other minor points about the operation, which we have not space to describe here.

Bonnet operated by inserting wires, with corks on the ends, across the sac;

Mayor, of Lausanne, by stitches through the sac, retained and tightened by being fastened over sponges externally.

Malgaigne advocated acupuncture of the sac, and subsequent pressure.

Velpeau and *Pancoast* have both operated by injecting the sac with tincture of iodine, or cantharides. The difficulty consists in hitting the sac, by a subcutaneous puncture.

Velpeau and *Guérin* have also operated by a lance-shaped subcutaneous knife, pushed into the inguinal canal, and scarifying it, and then applying pressure.

Verdier advocates the frequent employment of a cold douche, with an upward jet.

These operations all deal with the sac alone: they convert a scrotal hernia into a bubonocoele, and a new sac is formed after a longer or shorter time, from the loose folds of peritoneum.

We now come to the second class of operations for a radical cure, which act by invaginating some tissue into the inguinal canal.

The first, and one which has been formerly quite popular, is *Gery's* method. He operated by stitching up the invaginated scrotum and sac to the inguinal canal and skin of the abdomen by several loops of ligature, whose free ends are tied over quills on the outside, and whose bellies hold up the invagination. He then denuded the invaginated skin of cuticle by ammonia, and hoped to get granulation and adhesion in the inguinal canal.

Syme did a very similar operation with a bit of catheter.

Signorini operated in a very bold way, which he called intro-retroversion. He invaginated the sac so far that he could stitch it round the inner margin of the crural opening, and thence to the skin of the thigh, where it was scarified.

Haller stitched up the invagination by threads passed through a bit of cork.

The operation of *Wurzer*, of Bonn, enjoyed the most repute previous to Wood's. It was done by the aid of an instrument, consisting of a perforated cylinder of wood, a needle within, with a false point, which can be unscrewed, and a second half-cylinder of wood to press down upon the skin over the inguinal canal. The operator invaginates the scrotum into the inguinal canal by means of the whole cylinder, and then pushes on the concealed needle, which pierces the skin of the abdomen near the inner ring. Its point is

now unscrewed, and the half-cylinder fastened on to it by two screws—one at the needle-point, the other near the handle of the instrument. This is now screwed down moderately, so as to compress the wall of the abdomen and of the inguinal canal between it and the cylinder within the canal. If thought desirable, the invaginated skin can be denuded by acids. The apparatus is left on a number of days, until sufficient adhesive inflammation has taken place. This operation has met with some success.

M. Leroy d'Etoile has proposed an ingenious method for a slow, radical cure, by having a short invaginating plug fastened to a truss, which latter will keep up a constant, spring pressure on the canal.

That of *M. Sotteau* has many points of resemblance to Wurzer's operation, only it is more complicated. He drives needles through the invagination in the inguinal canal, from without inwards, and from within outwards, and, fastening blocks of wood over the points, compresses the skin.

According to Mr. Wood, these operations of invagination have failed for three reasons:—

First; because the skin of the scrotum tends to draw out the invagination by its weight and elasticity.

Second; they dilate the rings, and make them more patulous than before.

Third; they fail to act on the posterior wall of the canal.*

AN ARSENIC-EATER.

[Read before the Medical Society of Quebec, Canada East, and communicated for the Boston Medical and Surgical Journal.]

By F. A. H. LARUE, M.D.L., Professeur de Médecine Légale et de Toxicologie à l'Université Laval, Quebec, C. E.

DURING the winter of 1864–65, there appeared in the *Quebec Gazette* a series of articles under the heading of “Arsenic vs. Consumption,” in which the writer maintained that arsenic was a powerful remedy against pulmonary consumption, and stated that he himself had used it as such, with good effect, for many years, and was still in the habit of doing so from time to time.

Wishing to elucidate more fully what appeared to me an important fact, I waited on the Editor of the *Gazette*, and requested him to put me in communication with the writer. He promised to do so, and a few days after, a person called on me, assuring me that he would readily give me all the information I required.

We proceeded to my laboratory in the Laval University, and on my asking him what quantities he usually took, he said he knew little about doctors' weights and measures, but that he sometimes took

* NOTE.—We are indebted for the historical part of this paper, to a very great degree, to Dr. Bryant's Boylston Prize Essay, on the Radical Cure of Hernia, for 1817.

larger and sometimes *minor* doses. He then, with a small silver coin, scooped out a from a bottle of pure arsenious acid what he termed a large dose, and which, on weighing, I found to contain somewhat over three grains; then a minor dose, weighing about a grain and a half. B. swallowed the last dose in my presence. I afterwards weighed another half grain, which he mingled with the tobacco that he was smoking, filling the laboratory with a strong odor of garlic. He remained with me three hours, after which he departed in perfect health, and without having shown the least symptom of disorder.

I lost sight of B. for some time, when, on the 26th of April last, I met him casually, and asked him if he still used arsenic. He answered by taking from a paper in his pocket several grains of arsenious acid, and swallowing it without hesitation. I requested him to call upon me the next day at two in the afternoon; he did so, and we proceeded to my laboratory. I shall now take the liberty of transcribing, almost *verbatim*, the notes which I took during the course of the experiments.

April 27th.—At twenty minutes to 3, P.M., B. requested me to weigh him what I considered a reasonable dose. I accordingly, by aid of a small balance, the precision of which I had previously ascertained, weighed *two grains* of arsenious acid, chemically pure, and taken from my own laboratory. I presented him the dose. "Is that all?" said he; "you may treble the dose." Fearing to add too large a dose, I added but two more grains. B. then took the *four grains*, placed them on his tongue and swallowed them. He immediately afterwards lighted his pipe and conversed freely. I watched him constantly, to assure myself that he did not reject the poison.

3, P.M.—I asked B. if he felt any unusual symptoms. He answered that the dose had produced on him no more effect than if he had taken a glass of cold water. At his own request, I weighed another grain, which he mingled with the tobacco in his pipe, and smoked it.

3.30.—B. has not ceased conversing since he took the dose. He spoke chiefly on the wonderful properties of arsenic, related what he had heard said of the Chinese on this point, and explained his theories on the mode of action of this medicine. He alternately sits and walks, and smokes unceasingly.

3.45.—He again assures me that he does not feel the least unusual symptom; he expresses a wish to take a glass of wine. Accordingly, I ask him to accompany me to a hotel, and at 4 o'clock B. took a glass of port wine and lighted a cigar.

At twenty minutes to five, exactly two hours after he had taken the arsenic, I told B. that he was at liberty to go away, on condition that he should call on me in a few hours, and consent to repeat the experiment another day. "Better do it at once," said he; "at any rate, I shall be at your house at half past six, when I will take a

second dose and stay with you until midnight, if you wish it." I accepted his offer, and we parted.

At half past six, B. came to my house, as well as ever. During the interval he had gone to the Lower Town, to several places, and had not yet taken supper. "Hence," said he, "as I have come to remain with you till midnight, you must give me supper." I told him that after some reflection, I did not like to assume the responsibility of administering him any more of the poison that day; that we would resume the experiment another day. B. remained with me till 7½, and left in perfect health.

28th.—At 10½, A.M., I saw B. at his work. He was in high spirits, and assured me that he had not experienced the slightest inconvenience from the dose of the previous day. I again saw him at 1, P.M.; he was just dining very heartily, and to my inquiries whether he had had any evacuation from his bowels, he replied that he had not since ten o'clock the preceding morning, viz., four hours and forty minutes before he took the four grains of arsenic.

On the 27th (the day of the experiment), B. had breakfasted at 9½, A.M., on toast and chocolate, and at noon had taken a plate of pea-soup.

History of B.—Age, 47; temperament, lymphatic; good constitution; hair and whiskers reddish, both abundant—the latter sprinkled with gray. An Englishman by birth, B. has been in Canada since 1837.

B. has had three severe illnesses during his life; typhus (?) in 1839, an attack of cholera in 1849, and later *pulmonary consumption* (?). Besides these, he has always been subject to what he calls bilious headaches. He lives regularly, but was formerly addicted to an inordinate use of strong liquors. His appetite is good; nevertheless, he has never been a great eater. His complexion (notwithstanding the popular opinion as to the effect of arsenic) is not clearer than ordinary. He has frequently made use of emetics and purgatives, which have produced on him the same effect as on others; he even asserts that he is very susceptible to the action of the latter. He takes a great deal of exercise, and smokes inordinately.

Phthisis pulmonalis is hereditary in his family. His father died of it at the age of 39. Four of his paternal uncles and several of his cousins have died of the same disease. His mother, however, died at a very advanced age, and there have been no symptoms of phthisis in her family.

In the year 1853 or 1854, B. thought he was attacked with consumption. He coughed painfully, was hoarse, became emaciated, and had profuse night-sweats. He one day read an article in an old periodical, in which arsenic was suggested as an excellent remedy for consumption, and determined to make a trial of it. He accordingly bought two ounces of white arsenic, and immediately began to use it, without having the least idea of the quantity to be taken. The doses which he then used were as large as those he now takes.

When he first began to take arsenic, he used it six or eight weeks consecutively without any interval. Sometimes he took it five or six times each day; at other times three times a day, and sometimes only once or twice. He consumed the two ounces which he had bought in those six or eight weeks. He always took the first dose in the morning, about two hours before breakfast. At first, the morning doses had the effect of clearing his throat of a certain quantity of mucus, after expectorating which he usually felt weakness accompanied by cold perspiration—sensations, according to him, similar to those felt by a person who has just vomited. But the arsenic, he says, never made him vomit, nor even created nausea. While in this state, he generally dozed for a few minutes, and then smoked a pipe, mingling another dose of arsenic with the tobacco. In less than five minutes all these symptoms disappeared. B. does not now experience the same feeling after the use of arsenic. He is firmly convinced that he should have died of consumption long since, had he not taken to the use of arsenic. He says that arsenic never caused any relaxation of his bowels.

B. is married and has a family of six children, all healthy; the eldest is 29 years old, the youngest 11.

B. is intelligent, and has received a good education. "I have read," said he to me, "all that the doctors say about arsenic, and feel convinced that they know nothing at all about the matter." He would not, on any consideration, take arsenic in a state of solution. His reading has made him familiar with the constitutional symptoms produced by arsenic, which he declares never to have experienced in the slightest degree, even after six weeks constant use of the doses.

He withholds his name in connection with these experiments, lest, as he says, he might be looked on as a walking curiosity, and has consented to them simply from a desire to render some service to science.

He places greater confidence in the arsenic he smokes than in that which he eats; and whenever he has a cold, he takes or smokes arsenic, which he always carries with him as a cure. He refrains from drinking water for some time after eating arsenic, but takes willingly a glass of wine or of beer.

His general health is good, never suffers from pains in the stomach or bowels, which are regular in their action.

Quebec, June 17th, 1866.

The Degree of D.D.S.—The number of graduates at the Pennsylvania College of Dental Surgery this spring, was 36; at the Philadelphia Dental College 15, and at the Baltimore College of Dental Surgery 10, among whom three were from New England.

Reports of Medical Societies.

VERMONT MEDICAL SOCIETY. (Reported for the Boston Medical and Surgical Journal by L. C. BUTLER, M.D., Secretary.)

THE semi-annual session of this Society was held at Brattleboro', on the 13th and 14th of June; Dr. McCollom, of Woodstock, President, in the chair. The session was opened with prayer by Rev. Dr. Tyler, of Brattleboro'. The proceedings of the annual meeting were read by the Secretary, Dr. L. C. Butler, of Essex.

On motion of Dr. C. P. Frost, the members of the Connecticut River Medical Society present were invited to take part in the proceedings of this meeting.

The President, in a very appropriate and feeling manner, announced the decease of Drs. H. F. Stevens, of St. Albans, and S. P. Danforth, of Royalton, members of this Society. Dr. H. D. Holton announced the death of Dr. John Campbell, of Putney, a practitioner of over fifty years' standing.

On motion of Dr. Warner, it was ordered that a committee of three be appointed to prepare and present resolutions expressing the respect of the Society for our deceased brothers, and of sympathy with the afflicted relatives and friends; and also to recommend suitable persons to prepare biographical sketches of each, to be presented at the annual meeting.

Drs. E. D. Warner, J. Perkins and H. D. Holton were appointed such committee.

The Committee on Admission of Members, to whom they were referred, reported the following individuals as proper persons to become members of this Society, and they were duly elected:—Drs. J. P. Warren, F. J. Higginson, W. H. Rockwell, jr., S. W. Bowles, G. W. Horton of Brattleboro', W. H. Ellis of Townshend, F. N. Burdick of Guilford, J. B. Learned of Readsboro', W. B. Moody of Brownington, Lewis Patch of Newport, O. E. Ross of Queechee, George J. Crowley of Shrewsbury, C. A. Scott of Plymouth, M. P. Campbell of Rutland, David Allen of Putney, J. H. Stedman of West Brattleboro', F. J. Swift, Anson L. Pettee of Wilmington, Orman Terry of Bethel, Chas. Clark of Townshend, Geo. B. Haskins, E. B. Nims of Arlington.

Dr. C. P. Frost, of Brattleboro', presented an interesting pathological specimen of cancerous disease of the pyloric extremity of the stomach, extending to the lower portion of the œsophagus, and perforating the walls of the stomach in the direction of the liver. Dr. Frost gave a brief history of the case.

Dr. Bullard, of St. Johnsbury, read a paper on Dysentery as it occurred in Caledonia County, giving a succinct account of its symptoms, progress, *post-mortem* appearances, pathology and treatment. The paper was referred to the Committee on Publication.

Adjourned to 2, P.M.

2, P.M.—The Society again convened, Dr. C. L. Allen in the chair.

Dr. W. H. Rockwell, Superintendent of the Vermont Asylum for the Insane, read a paper on the *Treatment of Insanity*, in connection with which he gave a history of the Vermont Asylum, which has been for so many years under his charge. The paper was referred to the Committee on Publication.

The discussion of Dr. Bullard's paper followed. In reply to a question of Dr. Cushman, Dr. Bullard remarked that in all the cases examined after death in the stage of collapse, there was a highly inflamed condition of the colon and sigmoid flexure. In those that died in six to eight days, it did not exist above the sigmoid flexure, and was not in patches. The epidemic was confined to the Connecticut River Valley.

Dr. Cushman thought the phenomena noticed by Dr. Bullard were such as might arise in the outset of the disease from affection of the organic nerves, as shown by the symptoms of oppression, which were so marked. In the commencement of the disease there was no inflammation of the colon; this latter was secondary. In his locality, he had encountered epidemics of dysentery with complications of various kinds, especially with typhoid and typhus fevers, similar to that mentioned by Dr. Bullard, and in one instance in a region not subject to malarial influences, the cause of which was supposed to be the water used by the patients.

Dr. Russ had observed nausea, tenesmus, with other symptoms, in the cases which had occurred in his vicinity. They did not tolerate medicine well. He treated his cases generally with mercurials and tonics—the latter quite early.

Dr. Fairchild had seen the disease in his locality, one not exposed to miasmatic influences. It was most severe in a single family. It was not the dysentery of former times. The stools were free, full, dark and somewhat feculent, occurring every two or four hours. The pulse was feeble and the system prostrated. He regarded it as typhoid dysentery. In treating it, he kept the patient well under the influence of calomel and opium, with starch injections, and lost but two cases.

Dr. Graves, of New Hampshire, mentioned several cases in his locality, which exhibited a strong typhoid character. He relied upon calomel and opium, in small and frequently repeated doses, with brandy as a stimulant.

Dr. Perkins was reminded of similar cases in his practice, about the same time with those of Dr. Bullard. The disease began early in the season, and was characterized by frequent evacuations, severe tenesmus, with biliousness. The accession of the disease was gradual; there was listlessness, with a quiet pulse and slight paroxysms of fever. In the month of September it assumed the appearance of jaundice, accompanied by a typhoid condition of the system. Its peculiarity consisted in the biliousness and in the hæmorrhage from the bowels, which latter symptom occurred in relapsed cases, and not earlier than the second or third week of the disease. Some died. Some unexpectedly recovered, but convalescence was protracted, especially in the hæmorrhagic cases. The treatment employed was mercurial alterants, hyd. cum creta, with pulv. Doveri and saline or oil laxatives. In the cases of hæmorrhage, he found it important to control peristaltic action, which he did by enemata. One remedy employed was muriatic acid, in six- or eight-drop doses, in some diluent, or sugar, every four or six hours, and with the most gratifying effects. This remedy was suggested to him by its use in one of the London hospitals, and he employed it during the whole febrile course. One of its marked effects was that of a cholagogue. In the hæmorrhagic

cases he added the hydrochlorate of iron, alternated with opiates and quinine. The treatment was very successful.

Dr. Stiles had noticed in the severest cases delirium, occurring in paroxysms, a symptom that had not been mentioned. He had also noticed the hæmorrhage from the bowels, especially under relaxation of opiates. As a prophylactic against contagion, he suggested that the evacuations should not be thrown into the privy, but buried. The disease may be communicated, he thought, from the privy. His plan of treatment was the same as suggested by others. Dr. Stiles also alluded to the subject of *jaundice*, which was largely discussed at the annual meeting. He had not found success in the use of mercurials in its treatment, but had used compound tincture of cinchona, with saline cathartics. Wild cherry bark and cider was a popular remedy among the common people, and some cases were benefited by it.

Dr. H. D. Holton read the elaborate and valuable paper presented by him before the American Medical Association, and the Society unanimously returned him a vote of thanks therefor.

Adjourned to 8 o'clock, A.M., June 14th.

THURSDAY, JUNE 14th, 8, A.M.—The Society convened agreeably to adjournment, the President in the chair.

Dr. Sperry presented a paper on *Scarlatina*, in which he detailed its symptoms as they came under his notice, and advocated the idea of its non-contagiousness and the stimulant plan of treatment. Referred to Committee on Publication. A brief discussion followed.

Dr. Cushman questioned the position of Dr. Sperry in regard to the contagiousness of the disease. In his experience he had found its epidemic form to be contagious, and thought the cooling regimen to be far preferable to the stimulant. In the typhoid condition it may be required.

Dr. Scott had treated *scarlatina* upon a similar plan with Dr. Sperry with success, and thought he thereby avoided the affections of the throat and head.

Dr. Upham detailed an interesting case occurring under his own observation, exhibiting one of the many curious freaks of nature—the discharge of stearaceous, oleaginous matter from the uterus during confinement, and the subsequent discovery of a tuft of hair imbedded in the vagina, both of which specimens were exhibited to the Society.

Dr. Frost, who had seen the case repeatedly in consultation, regarded it as a case of ovarian tumor, the peculiarity of which was the point of the opening, it being through the uterus instead of the abdomen, the discharge taking that direction instead of the ordinary one. The opening was reached by introducing the finger within the os, and to the right side. Dr. Frost read a somewhat similar case recorded in the London *Lancet* in 1854. Dr. Upham's paper was referred.

Dr. Butler read a paper on *The Treatment of Cholera*, the salient point of which was that prophylactic and hygienic measures were quite as important in its treatment as medication. Referred.

An interesting discussion followed the presentation of this paper, in which Drs. Warner, Stiles, Frost, Cushman, Emmons, Perkins, Hunt, and E. M. Snow of Providence, R. I., participated.

Dr. Warner referred to the feelings which he had when he first

heard of the advent of cholera in the old world years ago, and they were now vivid in his recollection as the scourge again threatened to visit our shores. He gave a succinct and graphic history of its progress at that time, and of the ten cases which occurred in his practice. In his opinion, cholera would visit us; we should have it in Vermont. There was no preventive. The first case that came under his observation was that of a man advanced in life; no miasm surrounding him: not exposed in any way, as he knew of; and he knew of no exciting cause for the disease. A general choleraic diathesis prevailed. In his opinion, no quarantine or sanitary regulations could prevent its approach to our shores, or insure us against its attack.

Dr. Cushman related several cases which occurred in his practice during a former epidemic of the disease. In the west half of his town there was diarrhœa, but no cholera. His first case was near the lake, and several others occurred in the vicinity. As the results of his observation, he gave it as his opinion that the cholera virus was carried along in the air, making a narrow belt of choleraic atmosphere. He did not think it contagious. In the treatment, he used calcined magnesia for the mitigation of the stomach symptoms, and next to opiates with some success.

Dr. Emmons was visiting near Quebec when the epidemic first appeared there, and saw one of the first cases that occurred. Nearly all the cases that came under his observation out of the city were among persons who went into Quebec for trading purposes and returned, carrying with them the virus that prostrated them, and among those who were indiscreet in their habits.

Dr. Perkins related a well-marked case of the disease, in which he employed strychnia with opiates, with success.

Dr. E. M. Snow, of Providence, R. I., being present, was introduced to the Society, and requested to communicate his views upon the subject under discussion. Dr. Snow gave a brief *résumé* of the symptoms of cholera, the measures necessary to be employed in its prevention, and of the treatment which he regarded as preferable to others. This latter was that proposed by Dr. Hartshorne, of Pennsylvania. Dr. Snow's views upon the necessity of quarantine regulations and upon the contagiousness of cholera are well known to the medical reader, as also his views with regard to the paramount importance of proper sanitary measures to protect the community against the ravages of the scourge. Dr. Snow called the attention of the Society to the similarity between the symptoms of cholera and those of poisoning by arsenic, and suggested whether the antidotes for arsenical poisoning might not be employed in the treatment of cholera with success. Adjourned to 1½, P.M.

1½, P.M.—The Society met according to adjournment, the President in the chair.

Dr. H. D. Holton introduced the subject of the manufacture and sale of patent medicines so called, by members of this Society, and stated that a firm, one of whose members belonged to the Vermont Medical Society, was engaged in such sale and manufacture, and was issuing handbills and circulars, recommending and extolling a remedy for diphtheria. The subject gave rise to considerable discussion, and, on motion of Dr. Holton, a committee of one was appointed to inquire

into and report the facts in the above case at the next annual meeting. Dr. E. D. Warner, of New Haven, was appointed such committee.

Dr. Warner, from the Committee on Obituary Resolutions, made the following report, which was unanimously adopted:—

“Whereas it has pleased the wise Disposer of all things to remove our brothers [Drs. H. F. Stevens of St. Albans, S. P. Danforth of Royalton, and John Campbell of Putney] from their spheres of benevolence and duty, it becomes us to bow with reverent submission to this inscrutable dispensation; and while we entertain and express profound sorrow at the event which has severed from us those whom we loved and esteemed, to tender our sympathies to those who, in this bereavement, experience a deeper sorrow and more enduring grief, therefore

“Resolved, 1st, That in this dispensation it is due to those for whom we mourn, and to us their associates, that we contemplate their virtues, that we study on the life page which they left us, the self-reliance, the perseverance, the self-denial, and whatever of gentle bearing and Christian integrity made them what they were—skilful physicians, trusted and loved by their patrons, honorable companions and councillors of their brethren and co-laborers with them in their associated endeavors to elevate the standard of medicine and extend the sphere of its utility; and that whilst we record their example we will affectionately cherish their memories and endeavor to imitate their virtues.

“2d. That we tender to the families of our deceased brothers our most sincere sympathies, and earnestly desire that they may find alleviation of their deep sorrow in the remembrance of the virtues and high rewards of those whom we shall meet no more on earth.

“3d. That the Secretary of the Society be instructed to transmit a copy of the foregoing resolutions to the several families of the late deceased members of the Society—Drs. Stevens, Danforth and Campbell.

“The committee furthermore nominate to the duty of presenting a biographical memoir of Dr. Stevens, Dr. O. F. Fassett, of St. Albans; of Dr. Danforth, Dr. Hiram Crandall, of Burlington; of Dr. Campbell, Dr. H. D. Holton, of Putney.”

The distribution of the second volume of the Transactions of the Society to periodicals, societies, libraries, &c., was left discretionary with the Secretary.

Dr. Higginson, on behalf of the profession in Brattleboro', tendered thanks to the Society for holding its session in this place, and for the entertainment, instruction and profit they had received from the meeting.

Dr. Warner responded on behalf of the Society, expressing thanks for the cordial manner in which the profession of Brattleboro' had greeted and entertained its members, and assured them that the pleasant scenes of this session would long be held in grateful remembrance.

Dr. Holton moved a vote of thanks to Dr. Snow, of Providence, R. I., for his attendance and remarks on this occasion. Passed *nem. con.*

Dr. Richmond moved a vote of thanks to the several railroads for the courtesy of half fare, and to the people of Brattleboro' for the use of their commodious Town Hall. Passed *nem. con.*

Dr. Russ moved that the Committee on Publication have discretion-

ary power to publish or reject any papers which may be referred to them by the Society. Passed *nem. con.*

Dr. Perkins moved the appointment of a committee of three to take into consideration the following topics and report at the annual meeting in October next, viz.:—1. The order of business of the Society. 2. The appointment of a committee of one from each county to act as censors in the admission of members. 3. To make the necessary arrangements for proper resolutions and obituary notices of deceased members of the Society. Passed *nem. con.* Drs. H. D. Holton, Bulard and J. S. Richmond were appointed said committee.

During the session, several physicians from Massachusetts and New York were introduced to the Society and invited to participate in its proceedings.

The attendance was larger than at any previous semi-annual meeting. The sessions throughout were interesting and instructive. Upon invitation of Dr. Rockwell, Superintendent, the members of the Society visited the Vermont Asylum for the Insane under his charge, and were highly gratified with the excellent facilities afforded therein for the treatment of that unfortunate class for whom it is intended.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 28, 1866.

SANITARY INSPECTION OF BOSTON—THE BOARD OF HEALTH.

WHEN, a few weeks since, it was publicly announced that the Board of Health had at last consented to forego so much of their special prerogative of exclusive guardians of the public health, as to authorize a thorough, searching inspection of the whole city in all its nooks and corners, by competent officers, it did seem at last that something like a "realizing sense" of the numerous sources of zymotic disease to be found in every quarter had come home to the obtuse consciousness of its members. Not one moment too early did they decide to entrust this responsible duty to the City Physician and his able coadjutors. The great public nuisances which for a year past have called forth unceasing complaint from an indignant community, and the less obtrusive, but none the less dangerous pestilence-breeders hid away in filthy cellars, seemed at last to be in a fair way to be removed. Indeed, we think that the previous culpable remissness of the public health officers was for a time nearly forgotten in the general gratification at the prospect of such a purgation. As the inspection has gone on, we have heard from time to time of the horrible condition of the tenements of some of the poorer parts of the city, unearthed by the inspectors, and of the discovery, even among the residences of some of our wealthier citizens, of local impurities which were anything but creditable to the tenants of the premises. The practical working of the inspection only showed how very important it was to the well-being of the whole community, and brought very forcibly to the minds of thinking persons the suggestion that such a supervision ought not to be merely temporary, but should be continued during the summer months at least.

There was, however, one radical defect in the plan, and that has very seriously impaired its usefulness. Neither the inspectors nor the City Physician had any power to correct the evils which they demonstrated; they could only report to the Board of Health, which had already become a proverb of obtuseness to the most patent evidence of intolerable nuisances, and tardy and reluctant action when fairly pushed up to it by the popular clamor. The statements of the inspectors, even, were not regarded as conclusive, but the places reported were re-inspected under the direction of the Superintendent of Internal Health, and thus the special object of the inspection was frustrated. Of what possible use was it to appoint competent medical men to do the dirty work of inspection, if their professional opinion was to be held in complete abeyance to the opinion of an unprofessional health officer? The result has been as might have been anticipated. If we are correctly informed, the work of purification has been in many instances done in the most superficial manner, in some cases not at all; the reports of the inspectors have been sometimes discredited, or treated with disrespect, and at last the inspection has been summarily stopped before completion, without consultation with the City Physician, by the fiat of the dominant Board. It is time that the public took some decided action on this very important matter—time that the control of questions of public health should be taken out of the hands which now hold it, and given to those who by education and character are competent for its duties. Indeed, it strikes one, on the very face of it, as utterly absurd that the Board of Health, to whom all questions of public hygiene must be referred, does not contain a single member of the medical profession, not even the City Physician! And the Superintendent of Internal Health, the executive officer of the whole organization, is a man with so little idea of what constitutes a public nuisance, as to have recently declared that the intolerable stench which has caused so much sickness, and even death, in the neighborhood of Charles Street, was “*nothing but a healthy dock smell which could do no harm to anybody*”! Even as we write, we are compelled to close our windows, with the temperature at 90°, excluding what would otherwise be a most gratefully refreshing evening breeze, because it comes laden with the overpowering effluvium from the great South End cess-pool, a mile or more distant. If the cholera visits us this summer, Heaven help us! for certainly there never was a more feeble, tardy, reluctant, unsatisfactory attempt at removing local causes favoring its propagation than the action of our city officials for the year past.

The practical deduction from all this is plain enough. We want a new Board of Health, organized on an entirely different plan, in which the medical profession shall be represented, and of which the unprofessional members shall at least have the ordinary sensibility to ill odors of all kinds. The Board should have power, too, to correct, if need be, in a summary manner, the evils which come under its cognizance, in the way in which it has been done in New York by the newly organized board there.

A general inspection of the whole city should be made at stated intervals, and in the warm season at frequent intervals; for it is really surprising to find how ignorant the community is touching the dangerous influence of neglected drains and other impurities about their resi-

dences. Until some such radical reform in the whole system is effected we may as well abandon all hope of thorough, efficient, honest action in this vitally important matter.

To our brethren of the medical profession we appeal to use their influence at all times, in season and out of season, to awaken the minds of the people to the importance of this change until public opinion shall be effective to bring it about.

At the eleventh hour, we should rather say the *twelfth* hour, as our article is going to the printer, the City Government has passed orders notifying the proprietors of the premises to abate the Church Street and South End nuisances within a limited period. Our citizens have become pretty familiar with such orders, and have learned that they are not quite so satisfactory as seeing the work done. This special work ought to have been done a year since, and the delay has not arisen for want of a full knowledge by the Health Department of the flagrant evils in question. We see no reason, therefore, for striking out or altering one word of what we have written above concerning the great incompetency of the Health Department as now organized.

American Ophthalmological Society.—The third annual meeting of this Society was held at the Massachusetts Eye and Ear Infirmary on Tuesday, June 12th, and at the City Hospital on the following day, the President, Dr. Edward Delafield, of New York, in the chair. Twenty-two members were present; the cities of Boston, New York, Albany, Philadelphia, Baltimore, Chicago and Cincinnati being represented.

FIRST DAY.—Dr. H. B. Sands, of New York, reported a case of limitation of the field of vision from an extra-ocular cause, illustrated by drawings taken at different periods.

Dr. Dyer, of Philadelphia, gave the results of an examination of the eyes of Probst the murderer before and after the execution. After the body had been cut down, each crystalline lens was found to be opaque and to be fractured *in situ*.

Dr. Hildreth, of Chicago, read a paper on a form of anæsthesia of the cornea and persistent contraction of the pupil, accompanying certain cases of pannus, and relieved by the performance of Hancock's operation. This paper gave rise to a lengthy and animated discussion, at the conclusion of which the Society went into executive session and admitted several new members.

SECOND DAY.—Dr. Hay, of Boston, explained and demonstrated certain optical facts relating to the ophthalmometer of Helmholtz.

Dr. Derby, of Boston, read a paper on the necessity of employing greater accuracy in determining the acuteness of vision.

Dr. Noyes, of New York, reported several cases of retinal separation, operated on by him according to the method of von Graefe.

Dr. Jeffries, of Boston, explained certain facts relating to the anatomy of the ciliary muscle, illustrated by drawings and preparations.

The stated discussion on the various operations for the removal of cataract followed, and occupied the remainder of the session. This discussion will be given in full in the Transactions of the Society.

In executive session, the following officers were elected:—*President*, Dr. Edward Delafield. *Vice President*, Dr. Henry W. Williams.

Corresponding Secretary, Dr. Hermann Althaf. *Recording Secretary*, Dr. Henry D. Noyes.

On the evening of the first day, the Society was most hospitably entertained by Dr. J. H. Dix, at his residence; and on that of the second, the Boston members had the privilege of offering a supper to their brethren from a distance.

Death of Professor Reuben D. Mussey.—The venerable and respected Reuben Durrand Mussey, M.D., LL.D., died last Thursday, in this city, at the residence of his son-in-law, Lyman Mason, Esq., at the age of 86, after an illness of two years, during the larger part of which time he had been confined to his room.

Professor Mussey was a native of New Hampshire, and one of the most learned, practical, and respected surgeons of New England. He was connected with Dartmouth College in various medical professorships, during the period between 1814 and 1838. He then removed to Cincinnati, Ohio, and assumed a professorship in the Miami Medical Institution, being also connected with other institutions of a similar character in that region. During his stay at that place he had a large surgical practice in Cincinnati. He retired from practice about ten years ago, since which time he has published several medical works of much value. The last two years of his life were filled with suffering, above which his patience seemed to bear him, and his death was peaceful and marked with Christian resignation and hope. He was a member of Rev. Dr. Webb's church.

The funeral services were held on Monday afternoon in the Shawmut Congregational Church, and conducted by Rev. Dr. Webb. A brief prayer was first offered, followed by the reading of appropriate passages of Scripture. The funeral discourse was then preached by Dr. Webb from the 18th verse of the 4th chapter of Proverbs:—"The path of the just is as a shining light which shineth more and more unto the perfect day." A brief biographical sketch of the deceased was given, and the energy, progressiveness, and the many Christian virtues which constituted his character presented as an example for his family, and his brethren in his former profession. The services were closed with prayer and a Benediction.—*Daily Advertiser*.

Exhibition of Articles of Military Sanitary Science.—In a recent editorial we called the attention of our readers to the International Association for the relief of the misery of battlefields. It will be seen by an advertisement in this week's issue, under the heading "PARIS EXPOSITION," that efforts are making in this country to secure a full exhibition in Paris of every contrivance which the experience of our recent war has shown to be of value in alleviating the sufferings of war. We hope that the humane objects of the originators of this movement may meet with hearty sympathy and coöperation from our people, especially as any new device to diminish suffering will be of immediate practical value in the general war which seems to be impending in Europe.

Treatment of Cholera.—In an interesting letter to the *Medical Times and Gazette* on the various epidemics of cholera in Jamaica, by Dr. L.

Q. Bowerbank, after speaking of the obstinate prejudices of the ignorant negroes in regard to medical treatment, the writer says:—

"In the prisons and hospitals, whenever such patients refused to submit to treatment or to take the medicines ordered for them, the rule was to put the mattress on the floor, and to lay the patient there, placing by his side a bucket filled with ice-water and a tin pannikin. For the most part, these patients received little or no further care; certainly they were not rubbed and covered up with blankets as the more tractable were. But my experience was that the majority of those thus left to their own resources got well."

Iron in Renal Dropsy.—"The preparations of iron in the Pharmacopœia are numerous, but there is one which in these cases of renal dropsy stands preëminent for its efficacy, and should be preferred in these cases before all others. It is the tincture of the sesquichloride. But it is not as a sesquichloride that its efficacy is most perceived in these cases. It is as an ammonio-chloride, kept in solution by acetic acid, that its beneficial influence becomes most apparent. It is a very simple preparation; a few drops of the tincture, according to the age of the patient, are added to a drachm of the liquor ammoniæ acetatis, previously acidulated with acetic acid.

"If this be not done—if the sesquichloride is added to the neutral liquor, an insoluble ammonio-chloride falls, which is with difficulty again taken up; but, if the saline is first acidulated, a beautiful sherry-red fluid is produced, which is neither unpalatable nor liable to decomposition, and may be kept any time. The tincture of the sesquichloride has long possessed the favorable opinion of physicians in most cases of renal or genito-vesical disorder."—BASHAM'S *Lectures on Dropsy*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 23d, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	30	27	57
Ave. mortality of corresponding weeks for ten years, 1855—1865	34.2	35.8	70.0
Average corrected to increased population	00	00	76.34
Death of persons above 90	0	0	0

MARRIED.—At Hartford, Conn., June 5th, Dr. William O. Bell, of Westfield, Mass., to Miss Sarah M. Tinker, of Hartford.

DIED.—In this city, June 21st, Reuben D. Mussey, M.D., LL.D., aged 86.—In New Orleans, April 2d, 1863, Anthony Peniston, M.D., late Professor of Anatomy in the New Orleans School of Medicine.—In New Orleans, Dec. 2d, 1863, Thomas Peniston, M.D., late Emeritus Professor of Clinical Medicine in New Orleans School of Medicine.—In Charleston, S. C., May 7th, 1866, Henry R. Frost, M.D., Professor of Materia Medica in the Medical College of South Carolina.

DEATHS IN BOSTON for the week ending Saturday noon, June 23d, 57. Males, 30—Females, 27. Accident, 2—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 3—cancer, 3—cancren oris, 1—consumption, 11—convulsions, 1—croup, 3—dropsy, 1—dropsy of the brain, 3—drowned, 2—erysipelas, 1—scarlet fever, 1—disease of the liver, 1—inflammation of the lungs, 5—marasmus, 1—old age, 1—peritonitis, 1—premature birth, 1—scrofula, 1—smallpox, 1—tumor, 1—umbilical hernia, 1—unknown, 5.

Under 5 years of age, 24—between 5 and 20 years, 5—between 20 and 40 years, 12—between 40 and 60 years, 10—above 60 years, 6. Born in the United States, 43—Ireland, 10—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 23.

LECTURES ON HERNIA, GIVEN AT THE CITY HOSPITAL, BOSTON.

By DAVID W. CHEEVER, M.D., one of the Visiting Surgeons, and Assistant Professor of Anatomy in Harvard University.

[Communicated for the Boston Medical and Surgical Journal.]

No. III.—*On Wood's Operation for a Radical Cure.*

FOUR forms of operation for the radical cure of hernia have been proposed by Mr. John Wood, of King's College Hospital, London. They all aim to secure a subcutaneous union of the walls and pillars of the hernial opening, and a subcutaneous adhesion of invaginated tissues.

The first form has usually been done with a hemp suture, as follows:—

The patient is etherized, and the hernia reduced. An incision, about an inch and a quarter long, is made through the skin of the scrotum over the sac. The skin is subcutaneously separated from the spermatic fascia which invests the cord and tunica vaginalis, and in which the testis is loosely slung. This separation is carried so far that the spermatic fascia can be pushed up and invaginated, without drawing in the skin. The finger is then carried up into the inguinal canal, carrying this fascia and the hernial sac before it. The finger is hooked under the inner pillar and conjoined tendon, as high up near the inner ring as can be reached; the cord, meanwhile, lies behind the finger, in the fold behind Poupart's ligament, and out of harm's way. The *transversalis fascia* and the epigastric artery lie behind the finger. The peritoneum is wholly out of the way; unless the hernia be congenital, or the sac be adherent and irreducible, in which case it is perforated. The hernia needle is carried up on the finger; perforates first, the invaginated spermatic fascia and sac, next the conjoined tendon and inner pillar, and, finally, the skin of the abdomen. One end of the thread is then passed through the eye in the point of the needle, and the instrument withdrawn. Next the needle, still threaded, is passed up, a second time, on the finger, made to perforate the outer pillar, and then the skin of the abdo-

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men, through the first puncture. A loop of thread being retained over the abdomen, the needle is withdrawn, and, still threaded, made to perforate the conjoined tendon, triangular ligament and inner pillar, close to the edge of the rectus muscle. Emerging through the same puncture in the skin of the abdomen, the needle is unthreaded and withdrawn. We now have above, a loop, whose ends are through the outer pillar, and two free ends, which go through the conjoined tendon and inner pillar. These are now drawn up, and tied together over a roller, or block; thus drawing together the two pillars, the conjoined tendon, and the spermatic fascia and sac, and occluding the opening. The patient is put to bed, with a spica bandage applied, and, at the end of some days, when loose, the sutures are withdrawn.

Finding that the silk or hemp sutures cut through too soon, Mr. Wood substituted silvered wire; and, as this was difficult to manipulate with the needle armed, he modified the operation, as follows:—

Second Method.—The first steps, up to the passing of the sutures, are the same. The needle is made to perforate the conjoined tendon and inner pillar and skin, as before, and one end of wire hooked on, withdrawn through the scrotum, and disengaged from the needle. The latter is now passed up unthreaded, and perforating the outer pillar and skin, the other end of wire is hooked on and withdrawn, and unhooked. A loop is thus left above, and two free ends below. Then a third stitch is taken across the fascia and sac, in the scrotal incision, clearing the cord, and the wire drawn through that and disengaged. Finally, the lower wires are twisted together, drawn up into the inguinal canal, by pulling on the loop above, and the latter then firmly twisted down on them, in the puncture of the skin of the abdomen. The ends and loop are bent over a roller and fastened, and the hernial opening is thus occluded. After-treatment the same, with horizontal position, spica bandage, &c. The wires can be left in from ten to fourteen days, before loosening, and then withdrawn. Eventually, a truss is worn for six months; and if the operation succeed, the canal is firmly blocked by the invaginated tissues and lymph, and the tendinous openings and conjoined tendon adhere together.

The operation for femoral hernia is described further on, in connection with a case.

The fourth operation, by pins, is for young children, and consists in invaginating the scrotum, skin and all, without cutting, and skewering the pillars together by pins contrived for the purpose.

It will be seen that the principle of all these operations is the same.

Mr. Wood contends that all the operations which have been proposed previously to his own failed, either because they dealt with the sac alone, and thus converted a complete hernia into a bubonocoele; or because they tended to *dilate* the ring and canal by invagi-

nating the skin of the scrotum, which latter also was prone to fall out and withdraw the plug, by the weight of the scrotum and elasticity of the skin.

He claims, as peculiar to his operation:—

First; to invaginate the spermatic fascia only, and to place the denuded tissues in the most favorable condition for adhesion, subcutaneously.

Second; to draw together and tend to close, rather than dilate, the tendinous walls of the inguinal canal, by wire sutures, which are not prone to ulcerate, and which are subcutaneous.

Third; to draw forward and fasten the conjoined tendon to the invaginated plug of fascia and lymph, and to the anterior walls, and thus to obviate the tendency to future re-opening at the inner ring.

Before giving a tabular view of the results of operation, certain of my cases require special mention.

Case No. 6 and 7.—A very fat man, a mill operative, with double oblique hernia, complete or scrotal on both sides; rings large and patulous and very deep, beneath a thick layer of fat. Patient very desirous of some operation to enable him to retain his rupture with a truss, so that he can get his living.

He was operated on by the second method. Great difficulty was experienced in getting firm stitches, owing to the depth of the parts. One side broke down soon; the other remained partially occluded.

Case No. 9.—A man of 45 years, of a flabby habit of body, and looking older than his real age. A very large, direct hernia, in consequence of a kick from a horse, which lacerated the pillars of the outer ring very seriously. Rupture cannot be retained by truss. Is very desirous of an operation, expecting only to be able to keep rupture reduced, but not cured. Operated on by second method. At first a good deal of fibrous effusion. Able to keep up bowel by truss for several months, but, at the end of a year, had slowly relapsed.

Case No. 8.—A boy of 13, with oblique hernia; thinks it is not congenital. Operated on by second method. Wires loosened slowly. Allowed to get up at end of third week, with a truss. A varicocele becoming developed, was kept in bed again one week more. At the end of that time, he went about as usual; no impulse to be felt. It is now two years since operation; no impulse or bulging has recurred. There seems little doubt that this is a permanent cure.

Case No. 14 and 15.—A healthy child of 4 years; double congenital hydrocele, of large size, reaching midway down thigh. The child is rendered helpless by this malformation. Other measures having failed, a small quantity of biniodide of mercury was inserted into each sac. The effusion disappeared, but a double scrotal hernia soon followed. Both sides were simultaneously operated on by the second method. The sac on the left side was so large and thickened that, being irreducible, some doubt was felt whether the sac alone,

and no bowel, were in the scrotum. The needle penetrated the peritoneal offset (sac), as it must in a congenital hernia or an irreducible sac. No trouble followed. The wire separated in a week. There was a fair effusion of lymph. A double, soft-padded truss was applied. At the end of one year, there is a very slight impulse. Rupture does not descend when the truss is removed. No hydrocele. There can be no doubt that perseverance with the truss will effect a permanent cure; and the child is rescued from a state of complete helplessness, and restored to freedom of motion, and a better promise in the future.

Case No. 17.—A healthy female of 21 years. A small *femoral* hernia on the left side. Has existed for several years; very troublesome; often nipped; declares she cannot wear a truss on it; opening of crural ring quite small; hernia can be slowly returned. Patient clamorous for an operation, which was at first declined, but ultimately assented to.

The same instruments—wire, &c.—used as in the other operations. Patient etherized; rupture reduced. A short incision made over the tumor. The hernia needle first penetrated the iliac portion of the fascia lata, near the saphenous opening; then, emerging, it was directed up beside the femoral vein, and thence under and through Poupart's ligament and the skin of the abdomen. To this needle-point was threaded and attached one end of wire, which was drawn down and detached. Next, the needle was passed in and out through the pubic portion of the fascia lata, and thence on through Gimbernat's ligament and out through the skin of the abdomen, where the other end of the wire was threaded, drawn down and detached. Finally, a cross-stitch was taken in the sac and fascia, and the whole thing twisted down, bringing Poupart's ligament down near the fascia of the thigh, and thus tending to occlude the crural canal.

I was somewhat apprehensive of phlebitis or lymphatic engorgement, but none occurred. Everything went on very favorably. There was no impulse three months after operation. Patient wears Wood's femoral truss with ease.

The difficulties and risks of this operation are—the proximity of the great vein, the danger of striking the epigastric artery, the rigidity of the crural canal and arch, and the small amount of fascia which is movable enough to be invaginated.

The danger is greater, the chances of cure, *à priori*, less than in the inguinal operation.

This is the *first time* the operation has been done on the *living subject*, so far as I am aware. Mr. Wood describes the operation, as practised on the dead subject.

The following abstract gives the best condensation of all our cases:—

TABULAR STATEMENT OF TWENTY OPERATIONS FOR THE RADICAL CURE OF HERNIA.

Casc.	Sex.	Age.	Nature of Hernia.	Mode of Operation.	Appearance after Operation.	Truss, Occupation.	Success.	Relief.	Ultimate Result.
1	Male.	7	Right oblique Inguinal.	Wire secans (Gerdy's method).	No impulse. Large plug of lymph.	Truss.	1	1	Truss neglected; child scrofinic. Lymph absorbed at end of five months. Hernia down.
2	"	11	Right oblique Inguinal.	Wires, by Wood's first method.	Moderate effusion.	Tr. for a few wks.	1	1	No relapse. Lost sight of at end of four months.
3	"	6	Left oblique Inguinal.	Silk, by Wood's first method.	Sutures slough'd & thinough.	Truss.	1	1	Failure.
4	"	8	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Firm effusion.	No truss.	1	1	At end of eight months, lymph absorbed. Bulging at internal ring.
5	"	9	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Firm effusion.	No truss.	1	1	Lost sight of.
6 & 7	"	35	Double oblique Inguinal.	Wires, by Wood's second method.	One site occluded; the other not.	Double truss. — Operative.	2	2	Both ruptures recurred. <i>Great obesity</i> at time of operation.
8	"	13	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Varicocele. Some impulse. Rupture reduced two thirds in size.	Tr. a yr. Store. [Joy. Matter.	1	1	Perfect success at end of 2 years.
9	"	45	<i>Direct</i> ; torn by kick of a horse.	Wires, by Wood's second method.	No impulse. Moderate effusion.	Truss. Sailor.	1	1	Gradually enlarged again.
10	"	22	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Plug of lymph very large.	No truss.	1	1	At end of one year, recurred as umbonocle.
11	"	22 mos	Right oblique Inguinal.	Plugs (Wood's).	No impulse. Small effusion.	Soft pad truss.	1	1	Recurred, with whooping cough.
12	"	48	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Small effusion.	Truss. Laborer.	1	1	Recurred, with cough, at end of three months. At end of one year still much diminished.
13	"	1	Right oblique Inguinal.	Wires, by Wood's second method.	Ring too small to get finger in deep enough. Things very large. Sac on left side very large and thick.	Truss.	1	1	Broke down at once.
14 & 15	"	4	Double congenital Hydrocele.	Wires, by Wood's second method.	No impulse. Considerable suppuration.	Double truss.	2	2	At end of one year slight impurities on both sides. Do not come down when truss is removed. No hydrocele.
16	"	23	Right oblique Inguinal.	Wires, by Wood's second method.	No impulse. Small effusion.	Truss. Carpenter.	1	1	End of ten months, some impulse. Lymph absorbed.
17	Female.	21	Left Femoral.	Wires, as proposed by Wood.	No imp.	Tr. Servant.	1	1	At end of five months.
18	Male.	10	Left oblique Inguinal.	Operation begun, and abandoned; hernia adhering to outer ring.	No imp.	Truss. Merchant.	1	1	Recent operation.
19	"	23	Left oblique Inguinal.	Wires, by Wood's second method.	No imp. Large effusion.	Truss. Clerk.	1	1	Recent operation.
20	"	10	Right oblique. 4 Left oblique. 2 Double oblique. 1 Direct. 1 Femoral.	Wood's second method, 14; first method, 2. Second, 1. Pins, 1. Femoral operation, 1.	No impulse after operation, 10.	Truss, 16. No truss, 3.	12	12	

Curing a period from March, 1863, to April, 1866. Three years. Twenty operations.

The results expressed in this table may be summed up briefly, as follows:—

Recent operations, - - - - -	2
Operation abandoned, - - - - -	1
Cases lost sight of, - - - - -	2
Successful, - - - - -	3
Failures, - - - - -	12
<hr/>	
Total, - - - - -	20

Of the twelve failures, four were cases that should not have been operated on; two on account of great obesity; one, because the rupture was direct and the result of laceration; one, because the ring was too small to properly admit the finger. Deducting these four cases, and deducting also the first five on the list, where the operations were recent, abandoned, or lost sight of, and we have left *eleven* fair, average cases—of these, 3 were successful, and 8 failed.

This gives a ratio of success of 27 per centum: whereas Mr. Wood claims 70 per centum of success in a total of 150 cases.

What fair rules can we deduce from the above results; limited in number, it is true, but accurate as far as they go?

I think there can be no doubt that this operation is based on the most correct anatomical principles, and is the most thorough of any proposed. If this will not produce a radical cure of hernia, there is but little prospect that any of the other operations will do so.

It would seem to be a safe operation. In our twenty cases we had no peritonitis, and no death. And a certain additional risk must have been added in our earlier cases from our inexperience as an operator. Mr. Wood reports one death in 150 cases. This solitary case was fatal from pyæmia, or blood-poisoning, and is no greater ratio of mortality than is found in any series of surgical operations, even the most trivial.

This operation palliates, if it fails to cure. It renders an uncontrollable hernia controllable by a truss, in many instances. It tends always to reduce the size of the rupture, and it gives Nature a chance to restore the parts by retention and adhesion. It will cure some adult cases, but they must be cases selected with care and judgment.

It will fail to cure some adult cases. It affords the best chance of a perfect cure in children, from 6 to 12 years of age—after the crying and restlessness of infancy and the first dentition are over, and during the formative period before puberty. Nature then tends to close the rings, and the adhesive inflammation set up by the operation, even if but temporary, is of great assistance in furthering this desirable result.

It is true that the same end may be sometimes attained by trusses—but they must be very faithfully applied for a long while, and an operation shortens this period essentially.

Some adults, also, are undoubtedly eventually cured by hard truss pressure, on the principle formerly advocated by Heber Chase. But the chances of cure by truss pressure alone, are far less in adults than in children.

This operation of Mr. Wood's has not been many years before the medical public. Time alone can fairly test it. It is very possible that all the lymph effused is finally absorbed. The question then arises whether the changes which have been set up in the obliteration of the sac, the approximation of the pillars and the conjoined tendon, and so forth, will prove sufficient to obviate a future tendency to hernial protrusion. It is very certain that we have seen absorption in some cases at the end of four and six months; and in others, of a year.

Having now done the operation some twenty times; having tried all of Mr. Wood's methods, by silk, wires and pins, and also the femoral operation proposed by him, we have preferred to let three years elapse before formally tabulating the results of our operations. Sufficient care, time and labor have been bestowed to guarantee success, if it were attainable in the patients who fell to our lot. Some were improper cases for operation; some were, doubtless, negligent of after treatment, but others were fair, average cases of rupture in healthy males. We must confess that our success has not equalled that claimed by the originator of the operation. What more experience, judgment or dexterity might effect, we know not.

It is, perhaps, not improper to say, that in a letter from Mr. Wood, received a few months since, he makes the following statements:—

"I have now had about 150 cases of hernia under treatment by my operation, of all kinds, young and old, severe and moderate. In nearly all, trusses had been fairly tried; in some, failing to retain the rupture, in the milder cases failing to cure it. All have been urged to let me know if the rupture returned. Of these 150, in 40 the rupture has come back, more or less, but seldom so large as before.

"Mr. Paget, Mr. Haynes Walton and Mr. Redfern Davis have repeatedly done the operation, with success. It has been done extensively in Liverpool, Dublin, in Berlin by Langenbeck, in India and Australia.

"Many cases which I show, have been operated on 4, 5, and 6 years, and have worn no truss after the first year. One man is continuing the laborious occupation of a market garden porter, without a truss, &c. &c.

"I have come to the conclusion that in very large and direct cases in adults after 40 years, only occasional cures can be looked for, but a diminution of the rupture may be calculated on.

"In children before puberty, and in young men, the success of the operation is so decidedly superior to the great uncertainty, and,

when probable, the slowness of cure by truss pressure, and the symptoms are so slight after the operation, that I should not hesitate in submitting myself or a child of mine to it, rather than endure the inconvenience and risk which a hernia, supported by a truss only, entails.

"After all it is an operation of expediency, and liable to all the objections with which such operations are assailed. No man is justified in pressing it upon his patient. He should lay the facts before him fairly, and leave it to him to decide."

We must remember also to tell the patient that he has got to submit to from two to three weeks confinement in bed; to not much pain, but to weariness from position.

It will be both interesting and important to watch for the verdict which time shall set upon this operation. It is to be hoped that it will be largely tried by other surgeons in our own country. Whatever its ultimate value, it promises a certain amount of relief to a most common and distressing infirmity.

SOME OF OUR HABITS OF DOMESTIC AND SOCIAL LIFE.

[An Address before the Norfolk (Mass.) District Medical Society, at its Annual Meeting, May 8th, 1866.]

By STEPHEN SALISBURY, M.D., Brookline.

PERHAPS I ought to apologize for appearing before a society of well educated and accomplished physicians with a subject upon which they are undoubtedly as well, and possibly better informed than myself.

Addressing some more experienced, to whom my remarks may appear trite and familiar; others whose education has been more recent, and who are capable of giving me instruction upon sciences which have been developed within a few years; I must expect to be criticized, and I have no wish that it should be otherwise.

As a profession, may we not be congratulated that we are not always travelling in the same routine; that some of the errors by which we were impeded in our earlier practice have been corrected by the more extended use of the improved mechanical means, as the microscope, laryngoscope, and ophthalmoscope, and other advanced methods of investigation; that we have been permitted to learn something, as we believe, of caution if not of more successful practice, even from the absurdities of the various isms and new systems of which so many have been presented to the world within the last thirty years.

Is there not reason for congratulation that there have been advances in knowledge of pathology, and improvements in the management of some of the most fatal diseases; that consumption, or as it is now termed, tuberculosis, which was treated with mercury in

the early part of this century, the pathology of which was so much illustrated by the researches of Laennec and Louis and their disciples, has been recently still more elucidated, so as to correct some important errors which were inferred from their discoveries. When it was first discovered that tubercles accompanied almost every case of chronic disease of the lungs which proved fatal, it seemed to be a necessary inference that in them consisted the disease, and that to get rid of them if possible should be the only object of treatment.

But more recently it has been acknowledged that tubercles are but the local manifestation of a morbid process which has its origin elsewhere; and that they are only secondary to a constitutional affection which may not only be often recognized, and met with appropriate treatment, but still more frequently prevented, by correcting habitual errors of life, which inevitably tend to produce it. Some of our best authorities say that tubercle cannot be cured by any remedy, but good habitual precautions may prevent its development.

Chambers thinks that a single deposit of tubercle may almost always be recovered from; but that it is the tendency to the formation of it which we have to guard against, chiefly by improvement in the habits of life.

Insanity is another disease, the frequency of which may be attributed to the social customs which have been developed by the advance of civilization. It has been said, with how much truth I know not, that no instance of insanity was ever known amongst the aborigines of this or any other country. Dr. Noble has remarked, that the more advanced the civilization of any community, the more abundant are the cases of insanity. That new diseases are the inevitable results of civilization, we are certainly not prepared to acknowledge. Is it not, then, a part of our duty as physicians to discover why it is that these and other diseases have originated or are made more numerous by civilization? It is true, that few individuals have the power, and a very few have the resolution, to put in force the various preventive checks of disease, and thus attain a green old age; but the great mass of society must be contented to make the best compromise they can with the evils that surround them: but it is not less incumbent upon us to direct the way, even if we are fully aware that but very few will be influenced to yield obedience to the rules which may be arrived at. It is of some of the habits of social life, which have so great an influence upon the welfare of our race, that I propose to speak to-day;—not that I am by any means confident that I have arrived at the whole truth in regard to any of them, but I am convinced of the importance of keeping the profession continually active in investigating such agencies.

At the time when the quota of our State for service in the Union army was being filled, some astonishment was expressed at the large number of conscripts who did not come up to the requirements of the examining surgeons. It was replied that the number of those re-

jected did not exceed the proportion of those found unfit in other countries where similar restrictions were exercised. Whether this was true or not, it certainly was the fact, that many were exempt on account of various disabilities, which although not rendering them incapable of the ordinary avocations of life, must detract much from happiness, usefulness and longevity.

It is surely, then, quite as important a subject for the consideration of our profession, how the number of these disabilities, as well as of some chronic diseases may be diminished, and to what they may be attributed, as to decide whether the continuance of diseases may or may not be abridged by active treatment in the early stages.

You will say, perhaps, that many of these disabilities are hereditary. This, if true, only removes the question farther back; and admitting its truth, it is only a consequence of what might have been avoided or improved before in previous generations.

A highly respected authority, Mr. Chambers, has said that very much more than one half of those who leave this life die from imperfect nutrition, and more than one half of those who recover from disease gain that end by restoration of their digestive functions. The freshest air and purest water will be no protection from disease and death, unless the food with which the human system is supplied is possessed of the elements which are necessary for the maintenance of those forces which result in life. Hence, it must be acknowledged that the question as to what we shall eat is deserving of our consideration, although it may not be in accordance with the strict letter of the Scripture injunction. This question, as to what constitutes the best food for man, in all the various conditions of life, is still far from being fully solved. It is my belief, however, that we use much more animal food than is necessary or promotive of our best condition, and that many diseases would be avoided if it were less abundantly supplied; and have we not had abundant evidence of late years that even an army may be starved on an excessive diet of beef? I am not a vegetarian, and am well aware that man, when entirely uncultivated and guided only by that instinct which is sufficient to preserve and increase his race, depends very largely upon meat. Individual constitutions, it is acknowledged, may require a large proportion of meat; also those whose habits and avocations keep them active much of the time in the open air. Yet it is equally true, that many have passed long lives, free from disease, who have used but an extremely limited quantity of animal food. In the large cities and countries of Europe, where the price of meat is so high and wages so low that the laboring class can afford meat but rarely, they possess quite as much, and I think more, muscular strength and apparent health than the same class in this country, who *think* they require meat two or three times a day. I have seen a robust tender of masons taking his dinner of bread and grapes with as much satisfaction as if it had been roast beef, and apparently with as much

benefit from it. Men may be starved on beef alone (as was proved in the Crimea), not less than on arrowroot or corn-starch.

Perhaps of equal importance to the inquiry what we shall eat, is that as to the manner in which it shall be prepared. The subject of cooking deserves much more attention than it has received; and it was well timed that our friend, the Secretary of this Society, has recently drawn the attention of the public to it. I hope he will not let the subject rest until his efforts have resulted in some practical remedy for the amelioration of the evils of bad cookery. The disregard in which it has been held was apparently once sanctioned, if not encouraged, by the stoical resolution of our Puritan progenitors to neglect everything which had the appearance of ministering to the appetite. Whatever the cause, it is evident that *despatch* in the preparation as well as in the disposing of food, has been and still is too much aimed at. It has been said, with some truth, by a recent writer, that we are the worst cooks and the most unwholesome feeders in the world. He thinks that our nervous unrest is to be attributed in a great measure to the universal pie. We must admit this, at least in part. There is no doubt that pie and fried food constitute a very popular, and to housekeepers a very convenient method of supplying food. Doughnuts, pancakes, fritters and the various fried meats and vegetables form too large a proportion of our diet. With these fascinating dishes, our people are tempted to eat more than they require, and too much vital force is expended in the process of digestion. We hear more every year, from pathologists, of the morbid conditions of the blood as a cause of disease, and especially of late, in the fear of an approach of a fearful epidemic. It is not surprising that the fluids should be morbid, when formed of such indigestible if not pernicious materials as we have alluded to.

The hasty manner in which we consume our food, and which is almost universal, even with those who do not know what to do with themselves after the meal is completed, seems to originate in a national characteristic which has been chiefly instrumental in our pre-eminence as efficient business men—that of doing everything with despatch. Thus a rapid disposal of food has often been supposed to be an indication of a smart and enterprising individual, and I have even heard farmers say that they did not wish any better evidence of a good workman, than to see him get through his meals quickly. This, however, is a serious evil, and leads to indigestion, to imperfect nutrition, and this to various chronic diseases of which thousands die every year. *Edere oportet ut vivas, non vivere ut edas.* Yet eating is an important essential of living, and the manner is not less important.

After swallowing a meal without the necessary mastication, instead of yielding obedience to a natural tendency to rest, which man has in common with other animals, we are apt to hasten too soon to our work, and thus the process which the stomach has to accomplish,

requiring an additional flow of blood to that organ and an expenditure of nervous power, goes on with more difficulty when the means of its support, the nervous influence and the blood, are directed elsewhere.

In considering the subject of food, we should not overlook the remarkable tendency of man to partake of nervous stimulants. The extent to which substances may be taken with impunity which affect the nervous system, has long been an unsettled question; and however it may be decided, there is no doubt that one of the most terrible scourges of the human race is the tendency to indulge to excess in alcoholic beverages. There are, perhaps, some here who will feel that a total abstinence from these beverages is not warranted by the sound conclusion of science; but all must acknowledge the value of the abundance of facts which have been adduced to demonstrate that alcoholic liquors are not necessary for the maintenance of health and strength. In regard to their use in *disease*, there is a marked difference in comparing the practice and precepts of medical men twenty-five years ago and at the present time. When I was one of the resident pupils at the Massachusetts General Hospital, our headquarters was in the apothecary's room, and we were necessarily acquainted with the comparative quantities of different articles used. I am quite sure that the amount of brandy and gin (whiskey had not been introduced then) used for all the patients in the Hospital did not exceed two gallons in the year. I do not know what the practice there is now, but it is certainly very different in private practice. There has evidently been a great change in the practice of physicians in prescribing the use of alcohol in some form. It would be absurd to deny that stimulants of this nature possess a power as remedial agents which could not be supplied from any other source. Even the use of it as an article of diet may be continued for a long time with apparent impunity, when in many instances it is actually laying the foundation for some chronic disease, or for the rapidly fatal result of some acute one.

As in medical practice, so in social life the amount of alcohol used has increased to a degree not easily estimated. Is it not an important question how far the medical profession are responsible, by prescribing alcohol as a medicine, for this change in the habit of using it? I hope that no one of us will make himself liable to the criticism which I have heard pronounced upon an eminent physician who closed his career in the earliest part of this century, whose practice was more conformed to the present than to the time in which he lived. It has been remarked in regard to him, that he was a very successful physician, but made many drunkards. He never used the lancet, but depended chiefly on fomentations and stimulants to meet acute inflammation. He was very popular for a long time, but when the grand discovery was made that mercury was to cure all diseases, not excepting consumption, he was superseded by those who were specially acquainted with the use of that then reputed panacea.

[To be concluded.]

PROF. HUXLEY ON THE RELATION OF PHYSICAL SCIENCE TO
MEDICAL EDUCATION.

THE following is the substance of an address delivered by Professor Huxley at the annual distribution of prizes at St. Mary's Hospital Medical School:—

Professor Huxley said that he hardly clearly apprehended at first that a certain gravamen attached to the honor of presiding, in the shape of an address. After a brief introduction, he proceeded to speak of the relations of the physical sciences to medicine and medical education. He defined the object of the science of medicine as being to ascertain the nature of the disability which a diseased person labors under, and the means by which that disability can be removed; and, correlatively, the art of medicine as the skilful use of all those means by which we can ascertain what is the matter with the diseased man and their application to his cure. One great division of these means was derived from, or in its use dependent upon, the physical sciences. The microscope, the ophthalmoscope, the stethoscope, chemical tests, and the other great and familiar means of diagnosis, were all physical appliances. Further than that, every liberally educated medical man should surely know something about the nature of the bodies he is constantly employing. He should certainly, as a man of liberal education, know enough of botany and zoölogy to be on even terms with laymen, and give safe opinions and safe answers concerning the animal and vegetable substances which he uses constantly. He was quite prepared to admit, and indeed had always had a strong conviction, that there was something absolutely preposterous in the volume and bulk to which, for example, some of our treatises on *materia medica* extend, and the enormous quantity of absolutely irrelevant matter. He was not one who would take the student through the length and breadth of physical optics because there are particular substances used in medicine which change the polarization of light or exhibit the phenomenon of fluorescence. This was the Scylla; total ignorance was the Charybdis.

But there was a more important aspect of the matter: the relation in which the science of medicine stands to physical science in general. The scientific man makes use of the data of physical science for the purpose of reasoning out the exact conditions of the case which he has before him, and for the purpose of applying the precise measures which are adapted to meet that case. Having this conception of what is meant by scientific medicine, what has to be done in medicine before we shall reach this condition? For although, looking about us to surgical practice particularly, and perhaps in some few cases in medicine, it would be possible to adduce instances of what he should call perfect medical science—that is to say, where you have a complete knowledge of the lesion, and a complete knowledge of the conditions required to restore that lesion, yet these were among the rare cases presented to the physician or surgeon. And in the

majority of cases we had no such complete knowledge. There was a wicked and libellous old story, in which it was said, by way of illustration of medical practice, that in a diseased man nature and disease are as two men fighting; and that the doctor is a blind man who comes with a big stick, and hits hard, and sometimes hits the disease, and sometimes hits nature. If he might modify the story, he should say that, in these days, the physician is not blind, but, on the contrary, is a remarkably sharp-sighted, acute, painstaking and conscientious person; but that he finds himself in a very dim twilight; and that, having ascertained that the light is very uncertain, and very apt to vary, he rather, as a conscientious person, abstains, as far as possible, from using his club, and confines himself to what, if he might say so without offence to that company, was known as the part of a judicious bottle-holder—ready to pick up nature whenever she gets exhausted, and bring her up to time. That he took to be a fair description of the modern practice of physic; and no doubt it indicated a beneficent change satisfactory to the patient and to the physician, who feels that his club is not stained by innocent blood. But this was not final; and we must all look forward to the physician attaining as clear a mental vision of the condition of a diseased part, and the means of relieving it, as the surgeon has in the plainest kind of surgery. What the physician wants is more light. He wants a better light upon the arena of the fight, so that he may be able to remove the obstacles out of the way of nature, and may be able, as occasion offers, to deal her opponent a severe blow, without the chance of doing her an injury. That light must come from the cultivation and improvement and the refinement in every way of those sciences which furnish us with the data for deduction—the abstract physical sciences of anatomy, physiology, chemistry, physics, and so forth.

Upon a clear appreciation of this all our theories of medical education must eventually turn. Let it be granted, then, as he believed it must be, that a thorough grounding in physical science was the basis of all medical education. How was this attainable? One of the most experienced surgeons in these islands had raised his voice against the immense indigestible mass of information crammed into the medical student now in the course of three years. Coming without a scintilla of a notion of anything about science, he was expected to learn physics, natural philosophy, chemistry, botany, zoölogy, comparative anatomy, human anatomy, histology, pathology, therapeutics, medicine, surgery, dietetics, jurisprudence. The thing was absurd. You might make a sort of intellectual *foie gras* of him; but you could not give him information of the kind and scope which he ought to have in that time, and with the existing methods. They might be taught to pass examinations. He was going to say he would teach a dog to pass an examination, or at least nine tenths of the examinations that men pass through; but they would not acquire a knowledge of the facts from their own observation, and the only knowledge that is of the

smallest use. The practical and purely professional subjects alone must more than fully occupy every minute of the three years of study. What, then, was his meaning in dwelling on the enormous importance of physical science to students of medicine? He held that all this acquaintance with the principles of physics and chemistry and biology, ought to have been acquired in the course of their general education. If those who regulate education in this country had the smallest conception of what their real duties were, or of what the purposes of mankind and the conditions of its progress at the present were, they would give that knowledge; and those who wish to improve medical education must, to his mind, throw themselves into that object; they must compel those who give us primary education to make physical science a very large constituent portion of that education.

It was the duty of every man to lift up his voice against the scandalous perversion of human time and human ability under the system of gerund-grinding which now prevailed at schools. And, for the one particular purpose of medical training, it was the duty of every one of us who had that cause at heart to endeavor to exercise such an influence that the medical teacher shall not have to commence upon a mere *tabula rasa*, but that the young men who come up for medical education shall have been accustomed to acquaint themselves with chemical formulæ and chemical reactions, shall have learnt the great distinguishing features of the different forms of life, and the broad facts of physiology, the elementary outlines of which might—he spoke from experience—be taught perfectly well to boys of ten years old. How much easier the task would then be, not only for the learner, but for the teacher; and how vastly greater would be the stride made by every man towards that great goal already indicated, the establishment of a scientific medicine.—*Lond. Chem. & Druggist.*

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OUR PUBLIC BATHS.

THE numerous attendance at the bathing houses which have recently been opened to the public by the City Government shows how poor were our previous facilities, and how thoroughly this measure, which we have so strongly advocated in past years, is appreciated by the people. So popular, in fact, have these establishments already become, that they fail to accommodate the crowds which resort to them for refreshment and cleanliness at some hours of the day, although six floating baths have been erected along our winding sea margin. A visit to any of them on a warm day will satisfy our readers that in no way could money have been expended for the health and comfort

of our citizens so wisely as in this, and that in point of construction and internal management they are nearly all that could be desired. The economy and diversity of plan which have been observed in their erection point to their experimental character, and we doubt not that if the success of the present season warrants the outlay, more commodious and permanent structures will be added another summer.

But now that we have our public baths and there is no question as to the good they will do, there remains to be considered the possibility of evil connected with them. There is much more in a bath than water, and its effects are by no means limited to its cleansing action upon the skin. The chemical character of the matters it holds in solution are by no means to be disregarded, but the most important element in its influence upon the human system is its temperature. Recent experiments have shown that a man may live continually in a tub of water for a third of a year in almost the same condition as in atmospheric air, provided a certain temperature be maintained, while a plunge into the chilled waters of the ocean produces effects which are immediately felt, and which are almost wholly dependent upon the cold it contains. First comes the sudden shock and gasp, the skin becomes pale and assumes the spasmodic state of "gooseflesh," the external parts shrink, the blood recoils and is driven in upon the central organs, and the respiration is hurried and impeded. After the bath follows the reaction. The lungs and heart seem to act as if a load had been lifted from them, the blood is forced back through its natural channels with increased vigor, the skin glows, excretion is promoted, and a feeling of ease and elasticity pervades the whole body, which terminates in a delightful languor if rest is immediately taken. This is the natural sequence of phenomena, if the bather is healthy and does not remain in the water too long. But some of the internal organs may be weak and unable to accommodate themselves to the large amount of blood forced in upon them by the peripheral chill, and to free themselves when the bath is ended. In such cases headache, lassitude and disordered secretions may follow, or even more dangerous results. There are persons who appear to have so little vitality that even a momentary emersion produces a chilliness which lasts a long time, and whom blue skins and chattering teeth indicate to be wholly unfitted for the cold bath.

There are, indeed, many precautions to be observed, to render sea-bathing perfectly harmless, and among the thousands who daily resort to these establishments there must be many upon whom it may produce injurious effects. The children, particularly, who frequent them remain far too long in the water and bathe too frequently, and some means should be devised by which this evil can be prevented. Our present object in writing is to call the attention of those who have charge of the baths to the importance of having a series of rules prepared by some competent physician for the use of bathers, and of placing them where they will be read by all. They should contain advice as to the proper time of day, the length of time after eating, how often and how long one should bathe, as to the heated condition of the body, the proper way to enter the water, &c. Precautions might also be given concerning the diseases and conditions in which bathing is dangerous. Lastly, we hope to see explicit directions also posted on the

walls of each bathing house with regard to the ready methods to be used for the resuscitation of the drowned.

CHOLERA AND QUARANTINE.

CAN cholera be excluded by quarantine? The general conviction in Europe seems to be that quarantines are of no service. Quarantines, for the most part, as they have been enforced there, have not prevented the invasion of the disease, unless perhaps one little town be regarded as an exception. There is, on the neck of land made by a bend in the Volga, a settlement of Moravians that has been for a great while the admiration of all travellers for its neatness, perfect cleanliness, and for the good habits of the people. When the cholera has marched up the Volga, assailing almost every town in three several epidemics, this little Moravian Serepta has been left untouched. It is said, to be sure, in Copland's dictionary, that the authorities preserved a strict quarantine, and admitted nothing that could bring the disease to them; but whether it was from quarantine or from cleanliness, they seem to have escaped entirely. In its other relations quarantine seems not to have been effectual; but is it not plain, from the history I have given you of the several importations of the disease into this country, and into England, Scotland, Ireland, Nevis, and Guadaloupe, that if passengers and goods whose admission into these countries and islands was coincident with the outbreak of cholera could have been excluded or kept at a sufficient distance, the disease itself might have been excluded also? It does not seem to me that the question of quarantine is to be abruptly decided in the negative. Whatever may be said of the failures in Europe, whether they have arisen from incomplete restrictions and impracticability, or from the epidemic constitution of the atmosphere, or the admission of diarrhœa while cholera was excluded—here, far away from the sources of the disease, the great ocean intervening, at a distance that the miasm cannot reach, the rule may well be reversed. Experience has fully shown that as in armies, so in ships, the disease has a limited existence. It has repeatedly been brought into our harbor when it has not invaded our city. It may even become epidemic at the Quarantine Hospital, and the city escape. I have already called your attention to two instances of this occurrence. It appears from the *Report on Cholera of the Council of Hygiene and Public Health* (Citizens' Association), that there have been at least *fourteen* such epidemics within the old quarantine inclosure, and it is well known that the city has been visited but four times. There have been ten epidemics at that station which did not extend beyond its wall, or at least beyond the shores of the island on which that institution is situated. "Ten of these fourteen epidemics," the writer says, "unquestionably depended on cholera patients from ships, and in six instances at a time when there was no cholera upon our Atlantic coast." Can it be said then that quarantine, even in the slipshod and inadequate manner in which it has for the most part been enforced, has been a failure here? For it will hardly be claimed, such is the attraction of cholera towards large cities, that on these occasions the atmosphere of New York was free from those certain elements which are susceptible of poisonous transformation under the influence of the cholera poison, when at a

distance of only six miles in the open country those elements demonstrated their presence in violent epidemics. Yellow fever has probably been a hundred times confined to our harbor, when it has been brought here in ships, since its last epidemic prevalence in 1822; and if the virus of cholera poison is a miasm, as that of yellow fever is believed to be, it ought to be subject equally to exclusion by the same means. If, indeed, the disease is propagated by the discharges unchanged, or fermented, or combined with telluric agencies, all the more should it be subject to exclusion by force of isolation, time, disinfectants and sea-water. It has already had a success at this port which of itself goes far to disprove the doctrine that the malady is propagated by an atmospheric constitution alone. Quarantine, I repeat, has not been a failure in this country. Its rigid enforcement entails much personal suffering among passengers, and often heavy losses on property; and for those reasons it is often so relaxed as to be ineffectual. But I fully believe that, with the proper agencies and accommodations which it is notorious the port of New York now woefully lacks, the pestilence could be excluded in its approaches from the sea, forever. If this is true of New York, it is true of every port in the country; and if it is true, as I believe it is, that the disease has never visited this side of the Atlantic except by the aid of importation, this would amount to perpetual exclusion. Amidst contending interests it may be sometimes difficult to decide what the precise duty of the authorities may be in those matters. I have given you the facts, and yet you must form your own opinion as to the value of quarantine. If it is possible to ascertain whether the poison can be transported by the wind or in the air—and if so, how far—and in that way extend its ravages, it would aid in deciding the distance at which quarantaine rules should be enforced.—*From Prof. Clark's Lectures on Cholera, in New York Medical Record.*

THE following are some of the conclusions bearing upon the questions of the infectious character of Asiatic cholera, and the necessity of a general, uniform and efficient system of quarantine at all our ports, as communicated in a letter to the Hon. Z. Chandler, Chairman of the Senate Committee on Commerce, by Charles A. Lee, M.D., of New York, and J. M. Toner, M.D., of Washington, D. C.:—

We apprehend there is no apology necessary for making suggestions at this time that may assist in devising and putting in practice a system of quarantine that will, in conjunction with internal sanitary regulations, prevent the introduction into our country of foreign and communicable diseases.

There is also a respectable and highly influential class of physicians and gentlemen who plant themselves on the broad ground of non-contagion in yellow fever and cholera, and therefore oppose all quarantine of persons. They, however, admit the necessity of throwing some protection around the community by favoring the fumigation and disinfection of vessels and cargoes when there has been much sickness upon the voyage or deaths from a specific and communicable disease. This class of physicians hold that the *materies morbi* or *fomites*, which are the cause of epidemics, and which are by many considered contagious, are purely atmospheric, and are carried in the confined air of

ships, in merchandise, and through the open air, across the ocean and over a continent.

As a general rule, they leave out of view the important fact that there is a variable period of incubation in most infectious diseases, which extends from a few hours to ten or fifteen days. Suppose we grant that the essential poison of a communicable disease is not organic, there is, nevertheless, an incubatory period in all such diseases, so that a passenger may leave an infected ship apparently in perfect health, and may even have taken the precaution to have his clothing and trunks disinfected and fumigated, nevertheless the disease may be developed after having lain dormant in his system ten or twelve days, and thus, in some distant city or place, establish a new centre for the dispersion of the poison, from which others coming within the sphere of its action may be affected, and the disease spread indefinitely.

Believing, as we do, that neither communicable yellow fever nor cholera has ever originated within the United States, and that the first cases in each of the epidemics which have prevailed in our country can be traced directly to infected emigrant ships or to passengers, merchandise, or personal effects which have been brought from infected vessels or foreign ports, we therefore contend that if an efficient and uniform system of quarantine be established at every port in the United States through which passengers or foreign merchandise arrive, these diseases may be prevented from entering and spreading over our country.

With the improvements which modern chemistry and science have placed in the hands of the profession, we are enabled to facilitate commerce by a speedy and thorough disinfection of a vessel and cargo, without the delay of first unloading it. We believe that the period of detention of passengers at quarantine may be materially shortened, and its dangers greatly lessened, by establishing a proper system of inspection and classification of all persons landing from infected vessels or ports, into the "infected," the "suspected," and the "healthy," and maintaining a rigid non-intercourse between the several classes.

The assertion that quarantine has never kept cholera out of the country or city is a gratuitous assumption. Numerous instances and facts exist in proof of the contrary, as has been shown in Spain, Greece, and Italy, and recently at New York, Quebec and Halifax. But should the present notoriously inefficient system of quarantine as practised at many of our ports fail, it would militate nothing against the principle recommended, but only be a further proof of the inefficiency of quarantine as now conducted. We know, as does every person at all familiar with American quarantine, that there is not that perfect system of inspection, sequestration and isolation among the different classes of patients that humanity demands, and the nature of portable and infectious diseases requires for their complete arrest and annihilation.

The purpose of a quarantine, and the nature of the diseases met with there, make it obvious to a practical mind that every properly organized quarantine establishment requires to be located at a considerable distance from thickly-populated districts, and to have extensive grounds for anchorage, and separate and distinct hospital departments, so as to allow a proper classification of all persons arriving at the station. 1. A receiving and inspection. 2. A general hospital

department for all cases of accident, and diseases other than those of a contagious character. 3. A hospital for infectious diseases. 4. A department for the suspected, in whom contagious disease may or may not be developed. 5. A department for the convalescent. 6. A department for those who are unaffected, and in the enjoyment of good health, but who for prudential reasons should be detained, after leaving an infected vessel, a time equal to the longest known incubatory period of the prevalent disease. As quarantine is most essential during the months from May to November, and not likely to be called for during the remainder of the year, it is not thought that it would be necessary for the Government to erect expensive warehouses and separate hospital departments at each of the quarantine stations. Temporary tents or tenements would answer. The Government has no doubt in its possession a vast number of army tents or barracks which would answer admirably at most of the stations. The essential conditions of an efficient quarantine are, a good wide anchorage-ground to the windward of the hospitals; warehouses for a class of goods which cannot be so speedily disinfected as to make it safe to land it with the rest of the cargo; and hospitals properly separated for the accommodation of the patients according to their condition. If a principle of this kind, founded upon separation and non-intercourse of the departments, furnished with the most approved styles of water-closets and privies, were adopted at quarantine, the apprehensions and mortality from cholera would be greatly lessened. This principle of complete separation and sequestration of departments, with a space of a hundred or more feet between, and such subdivisions of departments as circumstances and experience may suggest, would, no doubt, have the effect to arrest and successfully prevent the introduction of cholera.—*New York Medical Record.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 30th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	42	33	75
Ave. mortality of corresponding weeks for ten years, 1855—1865	34.5	35.1	69.6
Average corrected to increased population	00	00	75.9
Death of persons above 90	0	0	0

MARRIED,—At New York, June 19th, Calvin Pratt, M.D., of Bridgewater, Mass., to Miss Addie Edstrom, of New York.

BOOKS AND PAMPHLETS RECEIVED.—Elements of Prognosis in Consumption. By James E. Pollock, M.D. London. (From the Author.)—Shakspeare's Delineations of Insanity, Imbecility and Suicide. By A. O. Kellogg, M.D. New York.—Influence of Distance from and Nearness to an Insane Hospital on its use by the People. By Edward Jarvis, M.D.—On Foreign Bodies in the Ear. By Laurence Turnbull, M.D. Philadelphia.—On Cholera, with Map and Microscopic Drawings. By Wm. B. Fletcher, M.D. Cincinnati. On Progressive Locomotor Ataxia. By Robert Bartholow, M.D. Cincinnati.

DEATHS IN BOSTON for the week ending Saturday noon, June 30th, 75. Males, 42—Females, 33. Accident, 3—anæmia, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 3—cholera morbus, 1—consumption, 9—convulsions, 2—croup, 2—debility, 1—drinking cold water, 1—dropsy, 2—dropsy of the brain, 1—drowned, 2—dysentery, 1—erysipelas, 2—typhoid fever, 1—typhus fever, 1—gastritis, 1—disease of the heart, 2—disease of the hip, 2—infantile disease, 1—disease of the liver, 1—inflammation of the lungs, 5—measles, 2—neuralgia, 1—old age, 2—paralysis, 1—peritonitis, 1—premature birth, 3—rheumatism, 1—scalded, 1—sunstroke, 5—teething, 1—trismus nascentium, 1—tyimpanitis, 1—unknown, 4.

Under 5 years of age, 25—between 5 and 20 years, 4—between 20 and 40 years, 26—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 45—Ireland, 21—other places, 9.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JULY 12, 1866.

No. 24.

LECTURES ON HERNIA, GIVEN AT THE CITY HOSPITAL, BOSTON.

By DAVID W. CHEEVER, M.D., one of the Visiting Surgeons, and Assistant Professor of Anatomy in Harvard University.

[Communicated for the Boston Medical and Surgical Journal.]

No. IV.—*On Irreducible and Strangulated Hernia.*

IF the diagnosis be clearly made out, we shall find that hernia, in all the conditions we have previously spoken of, as reducible, irreducible, or strangulated, requires a certain definite treatment. Apart from any procedure for a radical cure, all reducible herniæ require the application of trusses. We believe this rule to be without exception.

The same scepticism which doubts the usefulness of medicinal remedies in disease, cannot be carried into the department of surgery. Here we see plainly that unless we act promptly and understandingly the worst results will follow. A rupture or a fracture cannot be safely treated by expectancy; and the too great trust reposed in nature, by neglecting to apply artificial pressure to retain the bowels which she has extruded through inherited deficiency, cannot be too severely reprobated. Too much importance cannot be attached to the prompt and efficient treatment of hernia, as soon as it is discovered. We apply a truss to a reducible hernia for two reasons: first, to insure the patient against the risks of strangulation; second, to assist nature to cure the infirmity. Of the second reason we have already spoken. The risks which a rupture entails are so great that it would seem idle to argue on the necessity of a truss; and yet we hear of physicians who say to mothers, that they need not concern themselves about a congenital rupture in their children, as the bowel will go up, and take care of itself. Now, apart from treatment for a radical cure, and apart from the risks of strangulation, there is another grave reason why a truss should always be applied at once—and that is, that a hernia which stays down long soon contracts adhesions: first, of the sac to the neighboring tissues; next, of the bowel to the sac. And we have, before we are aware of it, an irreducible rupture, which cannot be cured, which cannot be returned, which cannot bear truss pressure, and

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which, while in constant danger of incarceration, is more dangerous to operate upon, for the relief of strangulation, than any other.

It sometimes happens that these irreducible herniæ contain omentum, instead of intestine; when this is the case they are of much less consequence. If the diagnosis be perfectly clear, and the tumor large and unwieldy, it may sometimes be removed with safety by excision. This is also true of irreducible herniæ through the umbilicus.

In any case of rupture, it is of importance to determine whether the sac contains omentum or bowel. Not unfrequently both are present; and it occasionally happens that the intestine is strangulated by the omentum. The differential diagnosis is not always easy. Intestine may be tympanitic, convoluted, elastic, and having the sounds and feeling of air and water together. It has also a more direct, thrilling impulse. Omentum is insensible, flat on percussion, doughy and inelastic. When reducible, they return into the abdomen differently: intestine with a gurgle and sudden collapse; omentum more slowly, evenly, and without noise. A mixed case is hard to distinguish; and it often happens that the omentum is irreducible and adherent, although the bowel goes back.

Other causes than those inherent in the rupture itself may prevent its reduction. A woman was brought into the Hospital last year, who had ascites and a double inguinal and single femoral hernia. The ruptures could not be returned, and she entered for symptoms of commencing incarceration. Here it was evident that the three ruptures were caused and prevented from reduction by the dropsy in the peritoneal cavity, which had dilated the rings and forced out the bowel. The fluid was drawn off by a trocar; and the ruptures returned readily, and were retained by trusses.

If an irreducible hernia become incarcerated and inflamed, the first symptoms are a stoppage in the peristaltic action of the bowels, with colic, and heat, swelling and pain in the hernial sac. It soon becomes much distended, red and shining; and unless the symptoms subside, will end in mortification and fecal fistula, if not in death. We cannot return the bowel, and an operation is in such a case the very last resort.

A few months since a man was brought to the Hospital in this condition, who had a large, hard, reddened scrotal tumor, tender on pressure, and irreducible, with colic and constipation. The history was that of an irreducible hernia of many years' duration. A warm bath, fomentations, opium and perfect rest eventuated in a subsidence of the inflammation and a resumption of the functions of the bowel. The popular idea in such cases is to give purgatives, as it is in internal stoppage, or intussusception. Nothing could be worse to do. The bowels cannot move until relieved of stricture, and the cathartic only increases the action of the muscular coat, and hence the spasm and incarceration. Opium, fomentations and time are the great remedies in an *irreducible*, strangulated hernia; but they must *not* be

relied on for a strangulated hernia which occurs *de novo*, or was *reducible* before. In these cases, time is the patient's worst enemy rather than his friend.

If milder means fail in subduing the inflammation in an incarcerated, irreducible hernia, we must not hesitate to operate, although the operation is fraught with far greater dangers than in an ordinary, reducible hernia become strangulated. We cannot probably return the bowel, and we have to leave open a large, hernial sac, with its contents. This risk, however, must be run sometimes. More than this, a case may occur where there are symptoms of peritonitis, and some evidence of an irreducible hernia, when it becomes our duty to cut down and see if stricture exists.

Sept. 22d, 1865.—A. W. C., at. 18, after exposure to cold and wet, was seized with a chill on the 19th, followed by fever, and pain in the right iliac region. All symptoms now aggravated. On examination, a local bulging of the abdominal wall noticed just above the ilium. Hernia in the left scrotum, although the testicle had not descended; but rupture seemed soft, and partially reducible. On the 23d, he was worse, with pain and delirium. Pulse 100.

24th.—Still delirious. Pain and tenderness all over abdomen. Lies with his knees drawn up; breathes rapidly; expression anxious; pulse 160, and feeble; vomits drinks. After a consultation, it was thought advisable to cut down over the neck of the hernia—which could be felt to be irreducible—to see if there might not be a knuckle of intestine strangulated. An incision having been made down to the sac by Dr. Thaxter, as soon as the sac was opened, a purulent, serous fluid ran out. No strangulation was found. The hernial tumor was composed of a small piece of intestine, a piece of omentum and a small, soft testicle, with a vaginal sac below it. By some arrest of development, the testis seemed to have remained in the canal, although a sac was opened down towards the scrotum.

The patient sank and died, and, on opening the abdomen, general peritonitis was found, which radiated from the cœcum and vermiform appendix. No foreign body in the latter.

It would seem as if the symptoms of *strangulation* were plain enough not to be overlooked, and yet they often are. Particularly is this the case with female patients, by whom the existence of a small femoral hernia may be unknown, or concealed from false pride. The physician, therefore, should always be on his guard in such cases. The symptoms of strangulated hernia are, first, general distress; then colicky pains, constipation, except a discharge takes place once or twice from below the stricture, and, finally, a reversal of the peristaltic action of the bowels and stercoraceous vomiting. With this, prostration, a cool, clammy skin, hiccough, a thready pulse, collapse, and ultimate death, unless relieved.

The stricture may take place either at the inner ring, the inguinal canal, the outer ring, or at the *neck* of the sac wherever situated,

or in any constriction of the sac itself, or, finally, from one part of the contents of the sac, as the omentum, constricting the bowel which is with it. In femoral hernia the strangulation takes place either at the crural or the saphenous opening.

Occasionally, but very rarely, a strangulated hernia, which resists taxis, returns spontaneously, without an operation.

A patient was brought to the Hospital with strangulated hernia, which had been down thirty-six hours. There was no action of the bowels; pain and prostration, and vomiting of everything taken—at first bilious, then of grumous matter. The hernial tumor was small, hard, and resisted all taxis. He refused an operation. The next morning he was worse, and the tumor had a dusky, red hue, and the feeling of containing serum. Still obstinately refused an operation. He was therefore sent home. In the course of the next night the bowel returned of itself, and he recovered. Few people, appreciating the chances of both, would have taken that man's risks rather than the risks of an operation.

The *taxis*, or reduction of the hernia by direct manipulation, is always the first method tried with a reducible rupture which has become strangulated. It should always be done under ether, with the patient on his back and with the legs raised, to relax the fascia in the groin; the pressure should be gentle, and not too long continued. We should manipulate the neck of the rupture with one hand, and push up the fundus with the other. In an oblique inguinal rupture the taxis should be directed upwards and outwards; in a direct hernia, backwards; in a femoral hernia, downwards, backwards and upwards. No precise rule can be given as to how much force should be used, or how long continued. We should rather err, ourselves, on the side of gentleness; believing, as we do, that more harm is done by injudicious and violent manipulation, and by delay, than by an early operation.

Of eight strangulated herniæ brought into this Hospital, one returned spontaneously, two were reduced by taxis, and five required an operation. It is true that this average of only one fourth reduced by taxis may be too small for general practice, since cases come to a hospital only as a last resort. The taxis, then, should be tried fairly, and all the other adjuvant methods we are about to mention, but not too long.

A long-continued hot bath, with an opiate enema, or opium by the mouth, often relaxes the parts so that taxis will succeed. In the same way ether acts efficiently. Ice, or even a freezing mixture, applied over the sac, may contract the rupture so that it will return into the abdomen. Inverting the patient has been sometimes successful; although there is some danger of tearing the bowel if it have become softened by long and tight constriction. Insufflation through the rectum of air by a pair of bellows, or with a common rubber enema syringe, until the intestines are fully distended, has several times

succeeded in withdrawing the strangulated knuckle of intestine. It has, also, many times failed, and seems open to the same objection of danger of rupturing the weakened bowel, as the treatment by inversion.

We must not lose too much time in these efforts. Cooper says that if he had femoral rupture down and strangulated, he would not let more than twelve hours pass without an operation, if other means failed. A small rupture, with a narrow neck and small rings, is much more liable to become strangulated than a large one. A femoral is, for the same reason, more dangerous than an inguinal hernia. A congenital hernia, or a large, old rupture, both having wide necks and rings, more rarely become strangulated.

There are two ways of operating, with or without opening the sac: the former, the older and classical and most widely approved method; the latter, the operation of Petit, revived by Mr. Luke, and other modern surgeons. If we can avoid opening the sac, we avoid the great risk of peritonitis; and, on the other hand, we run the risk of returning the hernia with the stricture uncut, or the bowel mortified. In femoral hernia, where the seat of stricture is frequently at the saphenous opening, we can operate more successfully without opening the sac than in inguinal hernia.

"The advantages of leaving the serous membrane entire," says Mr. Syme, "seem more than counterbalanced by the risk of wounding the intestine in dividing the stricture, of returning the strangulated parts in an improper condition, or the mischief that may arise from abortive attempts at reduction, when it is impeded by adhesions." Unless in a recent femoral hernia of small size, strictured at the saphenous opening, we should think it wisest to open the sac. When the sac is cut, there is often a gush of serum, the result of over-secretion from its peritoneal surface, and due to irritation. In any form of inguinal hernia, the stricture should be divided upwards; and in femoral hernia, upwards and inwards.

What disposition to make of a partly mortified bowel, has always been difficult to decide. Under how great a degree of congestion and strangulation, as shown by its various shades of color, it may be safe to return the bowel into the abdomen, each one must judge for himself. According to the views of Mr. Hutchinson, recently expressed in the *London Hospital Reports*, Vol. II., all patients operated on for strangulated hernia who die, die of peritonitis induced by the damaged intestine. We have, ourselves, seen a patient recover perfectly in whom the bowel was of a dark, beet color. When the bowel is really mortified, there is no question that it ought not to be returned, but left outside to form a fecal fistula. A graduated compress and spica bandage may be applied over the site of operation, if the bowel be returned; if not returned, the external parts should be let alone. The mortality of the operation for strangulated hernia is between 40 and 50 per cent. Of our five cases of opera-

tion, three died. We will conclude with a condensed report of these cases, from the Hospital Records, and a few remarks upon them.

CASE I.—Anne M., æt. 37. Strangulated femoral hernia for six days. Constipation, vomiting, singultus, during that period. Disease not recognized. Treated by cathartics. Now, a hard tumor, as large as an English walnut, in femoral region; skin red and ecchymosed. Under ether, gentle attempts at taxis were ineffectual; it was not thought justifiable to carry them far, for fear of rupturing the bowel. The sac was cut down on and opened. Bloody serum flowed from it. Sac found irreducible, and the intestine, which was of a light chocolate color, was adherent to the sac. The adhesions were carefully divided, and the bowel, apparently, freely returned into the abdomen. But little relief to symptoms after operation. She died on the sixth day. Autopsy.—Intestine found *still constricted* by peritoneum at the inner edge of the crural opening. Hernia sloughy, and intestine adherent to sac.

CASE II.—Eleanor F., æt. 38. Strangulated inguinal hernia. Three days since hernia got down, having always been reducible before, and yesterday colicky pains and vomiting set in. A hard tumor, size of an egg, now in right groin; tender on pressure; seemed to recede somewhat after taxis for fifteen minutes. The pain diminished, vomiting ceased, and she slept. The next morning taxis was renewed, under ether, without much effect. A large enema ordered. The next day, some vomiting; less pain; pulse 84. On the third day since entrance she became worse, with tympanites; vomiting and growing weaker. The operation for strangulation was done by Dr. Thaxter. Sac opened; serum in sac, which was thickened; no adhesions; intestine dark brown; stricture divided at external ring; bowel gently and easily reduced. A few minutes after, accidental pressure having been made on the abdomen, liquid fecal matter ran out. It was evident that the bowel had ruptured. She died in a few hours. No autopsy.

CASE III.—Mrs. S. H., æt. 40. Strangulated femoral hernia for twelve hours. Hernia of a year's duration. Never worn truss. Vomiting and colic all day. Repeated and violent attempts at taxis had been made before she came to Hospital. Now, countenance anxious and flushed; pulse quick; vomiting and pain. Hernia larger than an egg, in crural region, firmly fixed, with thin walls, quite livid. Very little and very gentle taxis tried. Operation; sac opened; serum and a dark-brown knuckle of intestine; no adhesion; stricture divided, and bowel easily reduced. The next day she rallied. On the fourth day she died, with vomiting, tenesmus, and collapse. No autopsy could be obtained.

CASE IV.—Chas. M., æt. 35. Strangulated inguinal hernia for twelve hours; always reducible previously. Now, vomited ever since strangulation. Left side of the scrotum as large as the fist; tense and tender. Attempts at taxis were made by Dr. Thaxter, and in

the inverted position, in vain. Ice was applied with no better effect. Tumor cut down on by a long incision; sac opened. A large mass of omentum protruded, and in its folds was strangulated a fold of intestine, intensely congested. No stricture elsewhere. The hernia was easily reduced, and the patient recovered without a bad symptom.

CASE V.—Mrs. B. C., æt. 42. Strangulated femoral hernia; twenty-four hours' duration. Now, pulse weak; skin cool and clammy; retching, dragging pains and prostration. A small, hard tumor in left groin, below Poupart's ligament. Taxis was used under ether without avail. The pulse became so feeble that it became necessary to stimulate her, and to operate at once. The stricture was found to be at the saphenous opening, and the hernia was reduced without opening the sac. She slept well that night, had three dejections next day, and recovered without an unpleasant symptom.

It thus appears that of these five cases of operation for strangulation, in two the cases were long delayed before the operation, and both died. In three the operation was done after a short period of strangulation, and only one died. Besides this, we find that of two of the shorter cases, one, with a strangulation of only twelve hours, and much the stronger woman, died. The other, with a strangulation of twenty-four hours, and a feeble woman, recovered. In the former, long-continued and violent taxis was used, and the bowel found chocolate colored. In the latter, very moderate taxis; and no bad symptoms followed the reduction.

This limited series of cases would seem to point to the general conclusion, that long delay and violent taxis, before operation, may be even more fatal than strangulation itself.

SOME OF OUR HABITS OF DOMESTIC AND SOCIAL LIFE.

By STEPHEN SALISBURY, M.D., Brookline.

[Concluded from page 464.]

It may be considered entirely superfluous, at this day, when the subjects of ventilation, pure air, and the necessity of ablution have been on the tongues of a large portion of the people in connection with the anticipated approach of cholera, for me to say anything with regard to them. As a general rule, the American or New England people have *always* been in advance with regard to the appreciation of fresh air and the avoiding of all sources of uncleanness. It is not so, however, we all know, with all of our citizens, and many require frequent supervision in this respect. I met with a striking illustration of the evil influence of the neglect of the sanitary laws with regard to the renewal of air and of cleanly habits in an epidemic of cerebro-spinal meningitis, which occurred near the limits of Brookline and Roxbury in the course of last winter.

Nearly all the cases which I saw were residents in rooms which

were too close, and were lying in bedrooms the air in which was repulsive from the odor of the clothing and human exhalations, to an extent which under any circumstances would have suggested the fear of poisonous infection, and which rendered the remaining at the bedside long enough to make a proper investigation of the cases an act of self-denial greater than even a physician often has to perform. One of the cases was the owner of a house, and was rejoicing in that degree of prosperity which enabled him to keep pigs in his cellar, and the milkman informed me that before and during the sickness the odor in the house was so disgusting that he could scarcely endure to enter it in order to leave his milk.

Two years since, I was called to visit several members of a family who were suffering from an attack of cholera morbus. Five were attacked simultaneously, and three of the cases were attended with severe pain at the epigastrium, frequent dejections and vomiting, with great depression of strength; all had more or less diarrhoea and vomiting. In searching for the common cause which might have affected them, no article of food could be suspected, unless it was a piece of roast beef of which all had partaken. Upon examining what remained of the beef, I could not discover anything which would warrant the supposition that the disease had been occasioned by it. Some one suggested that nitre, which was said sometimes to have been used in the preservation of fresh beef, and might have been then, as it was hot weather, had been the cause of the malady. But a subsequent discovery of defect in the drainage afforded a more probable cause. In looking into the cellar of the house where the sickness occurred, it was ascertained that a leakage had taken place from the vault into the cellar, and there was some reason to believe that it had affected the water which the family had been using; either of which was evidently sufficient to endanger the health of persons within its influence. The leakage into the cellar, as was stated, had occasioned an offensive odor in the house at times, and I think there is little reason to doubt that it was more instrumental in producing the disease than the nitre which might have been in the beef. After all, however, there was a mystery about the attacks which was not entirely cleared up, as those who came in to assist the family were more or less affected. Thus it has been, and probably will be in other epidemics, particularly of malignant typhus and dysentery. So large a proportion of them have been traced to some local cause which furnished offensive exhalations, that it is not unreasonable to infer that many may be attributed to or aggravated by this cause.

Among the many influences injuriously affecting health arising out of our social habits and customs, the prevalent method of education forces itself upon us as one of the most prominent. Those who are engaged in it are quite liable to become enthusiastic, and to exceed the limits of prudence in extending its advantages. A

recent writer has remarked that a man or boy has *too much* education when in developing his mind he has destroyed the health of his body, and it would seem that the ultimate usefulness of many children in our community has been diminished by inducing them to devote more time to books than was best for their health.

Our public schools are justly the pride and boast of New England; yet is there not reason for the belief that they as well as our colleges are responsible for some of the physical imperfections which we meet with? It was a ludicrous remark of Frederick the Great, that man was more adapted for a postilion than a philosopher, but it is admitted as a serious truth that a high state of intellectual cultivation is rarely attained but at the expense of bodily health.

There is no reason for this being so; the many instances we have had of self-educated men, who have not had the advantages of colleges, furnish sufficient evidence that a high state of intellectual culture and mental vigor may be attained, and at the same time a due share of physical strength to sustain them.

How often do we hear remarks similar to the following, which I quote from a recent sketch of an eminent member of Congress. "It was a great advantage to the subject of our sketch, that in his youth he knew what hard work was; of great *value*, in more ways than one. In the first place it laid the foundation of good health and a sound constitution. Then again it enabled him to understand, far better than he otherwise could, the wants, feelings and peculiar desires of the working people of our land." Are not these of value to a merchant or a professional man as well as to a member of Congress? It will certainly be acknowledged that to a physician such a preparation would be inestimable.

Our schools are too often managed with a belief that the true aim of education, is to introduce to the minds of children the greatest amount of knowledge of the various branches taught, and in the most expeditious manner possible, with little regard to the physical capacity and health of the child. By this process the mind may possibly be improved, yet it is very much to be feared that the result may be not only a deterioration of the mental powers, but likewise a diminution of subsequent usefulness and happiness. Confining scholars to study during five continuous hours of the day in school, and giving them tasks which require two or three hours of study at home, is carrying education to the verge of excess, and inflicting an injury to the physical system of the child, the effect of which it will feel in every future exertion, and exposure during after life, and by which it may perhaps be unfitted for many of the ordinary avocations. When the efforts of the scholars are stimulated by emulation, still more injurious effects may result. The mind is not improved in exact proportion to the number of hours devoted to study, or to the amount of knowledge acquired. It may comprise an arithmetic, a dictionary, a thorough knowledge of Latin and Greek, and yet be

very badly prepared for the struggle of life. *Over study* often defeats its object; it causes a kind of atrophy of the brain, or, as Rousseau expresses it, "returns man to his original stupidity." How can this evil be modified or remedied? Not by gymnastics, for experience has shown that very few have the patience and resolution to persevere, and those who do continue their use are very liable to produce permanent physical injury from too violent or excessive exercise. *Walking* is open to similar objections; it is too uninteresting to be continued as a daily resource, and when used occasionally is often excessive. Simple exercise for exercise sake soon becomes irksome, and ceases to be beneficial. Armstrong says:—

"He chooses best whose labor entertains
His vacant fancy most; the toil you *hate*
Fatigues too soon, and scarce improves your limbs."

Active sports, such as cricket, ball, and other well-known recreations, are efficient in relieving the restless craving for motion which is evinced by the young, and certainly should be encouraged. They, however, only partially remedy the difficulty; for those who need the exercise the most, are very apt to be the least disposed to engage in it, and even shrink from the sports which the robust children enjoy so much. Would it not be well to advocate the substitution of a regular system of useful manual occupation for mere play, in our various educational institutions? "For not only would the physical organization be thereby strengthened and developed, but the mental energy and dignity of character would be increased, and the mind become better fitted for independent action."

Why should not a portion of the time assigned to the school hours be devoted to practical instruction in some of the mechanical arts for boys after arriving at a proper age, and in some corresponding occupation for girls? * Does any one doubt that both would have a better knowledge not only of how to make themselves useful in life, but even of the branches which they have studied in books, for their bodies as well as their minds would thus be invigorated. It is true, all cannot practise the mechanical arts, but will not all be better educated for being acquainted with them? Whether this suggestion of combining manual with intellectual education be considered Utopian, or really practical, it is certainly highly important to bear in mind that in education the muscular system, as well as the intellectual, imperatively demands exercise; and that without it there must necessarily be decay. It behooves us also to remember that violent and fitful exercise, occasionally, is by no means to be recommended; for instance, a long walk or a great effort at rowing after a week of inactivity. This is nothing new, for Galen inveighs against violent exercise in gymnastics; and Dr. Combe, in speak-

* The girl who can solve a problem in Algebra, and who cannot readily perform the ordinary household duties, will probably prove to be a more pitiable than valuable member of society.

ing of students and other sedentary persons in his own country, says, "It is no unusual thing for youths, still weak from rapid growth, and perhaps accustomed to the desk, to set out in high spirits at the rate of twenty or twenty-five miles a day on a walking excursion, and (in consequence of carrying exercise to that degree in which *waste exceeds nutrition*) to come home so much worn out and debilitated that they *never* recover."

In this climate, where three fourths of the disorders to which the constitution is liable are said to be considerably influenced by aerial transitions, and the chief defence against the atmospherical changes is clothing, the subject of *dress* demands much attention. *Men* seem to be very willing to conform themselves in their dress to the peculiarities of the climate, and to allow fashion and common sense to have some affinity with each other. It is not always so with the gentler sex, for they often clothe themselves and their children more as if they were endeavoring to ascertain how much abuse the constitution would endure, than merely to give protection with suitable garments.—There is still reason to believe that female dress errs in one important particular, even when unexceptionable in quantity and material. Notwithstanding all the lecturing upon this subject in past times, the dress being made to fit too closely on the upper part of the body, is now, we fear as much as ever, considered to be essential to the good looks of young and middle aged women. Too frequently, the ribs are compressed and the form distorted by tight lacing, and when, as is often the case, this is commenced before full growth has been attained, the capacity designed for the lungs and some of the abdominal organs is permanently and seriously diminished, and muscular action paralyzed. If we could read a revelation of the number of those whose lives have been made miserable, and health destroyed by this error, either directly or by the fault of parents, we should doubtless be overcome with astonishment. This, associated as it often is, with the expansive hoops which tend to deprive the lower extremities of the protection which they require, leads one often to wonder at the endurance of the female constitution. In a severe winter wind ladies are sometimes left with scarcely any other protection for the lower limbs than thin cotton.

As for young children, in viewing their dresses cut low in the neck, and so short as to expose the legs from the knees downwards, we see one of the fertile sources of mortality. It seems, however, that, in some instances at least, it requires more than *even* a *physician's* authority to correct this evil; for one lady, whose attention was called to the insufficiency of her children's dress, by her medical attendant who had often been called to prescribe for bronchitis and tonsillitis in the family, remarked she herself had lived through it when a child, and she thought *her children* might. Important as it is, that children should be sufficiently clothed, and that their dress should be adequate to protecting the body from an abiding sensation

of cold, we must not forget that warmth is not to be sought in clothing alone. If too much dependence is placed upon an excess of thick clothing, exercise, which is another essential means of warmth, is impeded and rendered too fatiguing. By such excess, also, the system is rendered susceptible of injury from the slightest accidental exposures or variations of temperature and moisture; and to an extent equal to that caused by living in rooms heated to too high a temperature.

I have thus endeavored to draw the attention of this Society to a few of the most important influences upon health and disease; and imperfect as my effort may have proved, if any of these suggestions should lead to a more thorough consideration of the subjects discussed, or tend to more satisfactory conclusions with regard to any of them, our time will not have been lost.

RATIONAL MEDICINE AT GUY'S.

To the Editors of the Boston Medical and Surgical Journal.

THE following extracts, from a report, in the London *Lancet*, of a lecture, at Guy's Hospital, on the Theory and Practice of Medicine, by S. Wilks, M.D., Physician to the Hospital, though seeming repetitions of what has been so often said in this vicinity for years past, are nevertheless worth reprinting as showing the progress of rational medicine in conservative old England. *

"The medical man is ceasing to be regarded only as a curer of disease; but he is looked upon as a custodian of the public health, and also as a medical adviser in private families to exercise his knowledge for their good."

"The doctor so often steps in with his remedies that it is difficult to ascertain what changes are due to the natural progress of events, and what to the remedies. He often attributes to his own drugs what is due to Nature; otherwise how does he account for the same result when so various means have been employed?"

"You may have heard of the expressions, natural history of disease, and of the expectant plan of treatment; and you may have heard also both terms held up to ridicule as indicative of a want of faith in medicine; but you only require to be reminded that such terms are merely the more correct expressions of opinions which are more or less vaguely held by all practitioners of our art. For instance, choose any medical man who you know possesses the greatest confidence in the efficacy of his medicines to cure most of the maladies which come under his notice, and place before him cases which you feel sure will be benefited by his superintendence—give him, for example, a case of early phthisis, a case of sore throat, a case of delirium tremens, and a case of fever. Would it be unreasonable for any

unprofessional person who had heard the doctor's affirmation, to expect to see these persons well on the following day, or on the third day, or on the fourth day, or at the end of a week? Such an expectation might then, for the first time, cause the doctor to realize the fact, which he had never until then placed clearly before him, that he had never, with his most ambitious hopes, anticipated a result before certain periods, differing in each case—that he never intended to declare that his patient's cynanche would be well before two or three days, or that the treatment of the delirium tremens might not take an equally long time; as for the fever, of course he did not hope to cure it under a week or two; and as for the phthisis, he intended only to promise a change in some weeks or months. Here, you see, *time* is admitted, even by one who has the greatest faith in his medicines, to be an important element in the cure; and therefore all we ask for is, to be informed *what time*? In what time do you hope to cure fever—in what time do you hope to cure delirium tremens? &c. The answer in many cases would be, that the time corresponded with the natural termination of the disease; but this we want to ascertain with precision. If a disease pursues a certain course—if it has its origin, its progress and decline, surely we ought to know all about these before we can step in with our remedies, and assert that we have altered its course. Does it not seem to you absurd for any one to declare that he has changed or arrested the course of a disease, when he is utterly ignorant of what the natural course of that disease is? Yet absurd as it appears, we are in that position. It therefore behooves us as a first necessity to know the natural history of disease before we attempt to cure it. The best advances which we have made of late in our art have been founded on this knowledge, and it is none the less an art if it has taught us to do less rather than more.”

“We have diseases, such as fever and the exanthemata, for which we know no remedy, but simply watch the progress of the case; the aid of the medical man, however, being equally beneficial. There are still other affections for which have no specifics to produce a direct cure, nor are we utterly helpless in assisting the patient, but we adopt measures based on a true scientific method, by which we lead the sufferer to health. . . . Such cases and their mode of treatment place our profession on a sure basis, and constitute the best examples antidotal to all quackery.”

“The patient has recovered under the judicious treatment of the doctor, but the medicines were only indirectly operative. If you believe that they are curative, and state as much to your patient, you are not raising your position, but lowering it. You are giving credit to the medicines which you should give to yourself. It is your skill to which the patient owes his life, and not to some specific medicine of whose operation you know nothing. The more power you attribute to the medicine and the less to your own

knowledge, the more you resemble the quack; and you lower your art, not raise it."

"There may be art when no medicine is given, and I will give you a striking instance in illustration." [Case.] I call that true art, and art based on knowledge. Every other method except that which is founded on true knowledge, is associated with some remedy. What remedy had this young medical man to whom his friend was indebted for his life? He had none at all, if you mean medicine or a drug by a remedy; his remedy, indeed, was the very absence of medicine. And thus it is with us; we have no scientific therapeutics properly so called, but we take each case on its merits, and the highest art is sometimes seen, as in this case, when we give no medicines at all. Do not let me hear that called heroic treatment where much and powerful medicine is given. Such treatment is more often dictated by ignorance and cowardice. Nothing is more easy and more often approved of by your patients than to give plenty of medicine, to do a great deal for them, and to tell them to live better. . . . Don't call that heroism; it is cowardice, for you dare not oppose the prejudices of your patient. I call that young man whom I have mentioned a hero, and his was the heroic treatment—to insist on a man lying in bed, eating nothing, and taking no medicine."

"I have alluded to homœopathy because it is the best example I can choose of false doctrine, and also because I have heard it stated that orthodox medicine is tending in that direction; that even the doctors of Guy's Hospital are tainted with the heresy. Those who have hinted at this know not what we teach, for nothing can be more diametrically opposite than the instruction which you have here and that of this absurd system. . . . Every system of quackery depends upon its special mode of cure. Take that away, and the whole bubble bursts. Is it so with us? Throw our Pharmacopœia in the fire. Has our system ceased? Can we make no use of our knowledge? Have we no resources left? Mind you never allow any one to compare orthodox medicine with any system of quackery. The only point of comparison can be in reference to cure. Theirs is a given method; ours is not. Never allow yourself to be called by so absurd a name as allopathist, or by any other term which implies a particular mode of treatment or physic-giving. We cannot be ticketed in that manner. We have much larger means at our disposal than the Pharmacopœia can give. Destroy it, I say: but Guy's Hospital remains, the professors remain, and you practitioners remain. That book is not the foundation on which we practice; and, therefore, although I say it with the utmost respect to the individual members of the Apothecaries' Hall, I solemnly believe that the founding of the medical profession upon a company of druggists was one of the most lamentable events that could ever have befallen a learned body. Physic and medicine the

basis on which we depend! Could anything be more absurd or mischievous? Anatomy, physiology, pathology, and the study of disease is our foundation. Quackery is founded on a given system of phisic-giving; we are superior to it. Orthodox medicine is an art based on a knowledge of disease."

"Do not misunderstand me, and think that I have no faith in medicines, and wish to implant a similar scepticism in your minds. I believe as much in the efficacy of many drugs as does any member of the profession. I wish merely to impress upon you the necessity of regarding them in their true light, as a means to assist us in the treatment of disease, and not in the quackish sense of remedies, which savors of mysticism."

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 12, 1866.

DR. SALISBURY'S DISCOVERY OF THE CAUSE OF INTERMITTENT FEVER, EUROPEAN COUNTER-CLAIMS.

OUR editorial notice, some time since, of Dr. Salisbury's discovery of the cause of intermittent fever, appears to have been the means of making it known, through the *Union Médicale*, to many European readers. The article in the *Union* was soon followed, as we have already announced, by a claim of priority of discovery by Dr. Lemaire, of Paris. Curious and interesting as his researches were, we did not consider his claim fully sustained, as, although he suggested that the poisonous influence of marsh miasm might be due to an organic cause, and although he had detected organic germs in the gaseous emanations from decomposing matter in the laboratory, and had collected similar bodies from the air over marshes, he did not search for them in the secretions of the sick, nor point out any connection between their presence and the diseases in question. The subject has excited much interest in Europe, and in the *Union* for the 7th of June we find further reference to it, and some new facts of a very remarkable character. It is of so much importance practically, as well as of so much scientific interest, that we offer no apology to our readers for translating the article in full:—

"Numerous communications, of different kinds, have followed the publication in our Journal and everywhere repeated, of the observations of Professor Salisbury, and the claim of priority by Dr. Lemaire, with regard to the cause of intermittent fever—or marsh fever, to speak more correctly. Without noticing all these communications, some words are indispensable to set right those writers of the American press, who, in their astonishment at the feeble scientific repute obtained by the demonstration of M. Lemaire of the febrigenous spores in the effluvia of marshes—a silence which they find confirmation of in our ignorance of the fact—are inclined to suspect the facts and to undervalue their reality. I should astonish them much more were I

to reproduce the school recollections of an honorable associate, attributing the discovery of this fact to Gratiolet, and dating it much earlier. But exact, written, public documents, official communications like those of M. Lemaire, can alone be invoked to establish such priority. Forced thus to yield to the precision of such details, our correspondents of the Boston Medical and Surgical Journal still claim, for the glory of their compatriot, the merit of having specified, demonstrated the plant, the *alga* which produces these morbid sporules. Granted; but this discovery was made long since, empirically no doubt, and without due account being rendered of it, but nevertheless demonstrated, with just as much evidence as by the learned American micrographer.

“ ‘While I was a student,’ says Dr. Van den Corput, ‘I proved in my own person, and on many different occasions, that after keeping in my bed chamber *algæ* and marsh plants, contained in a vase standing in a large basin, I invariably felt, some days after, genuine attacks of intermittent fever.’ From that time it has been a question with him whether the cause of intermittent fevers was in the gaseous emanations of a hydrogenous nature, according to Rigaud, de l’Isle and Julia, or whether it did not exist in the microscopic *algæ*, the sporules of which were held in suspension by the watery vapors or raised by the wind. Time alone has been wanting to him to clear up these doubts by experiment.”—(*Journal de Médecine de Bruxelles*, April, p. 230.)

In support of this assertion by the learned editor-in-chief, Dr. Hanon is none the less explicit.

“ ‘In 1843,’ he says, ‘I was studying at the University of Liège. The learned Professor, Charles Morren, had excited me to such an enthusiasm in the study of the physiology of the *algæ* of fresh water, that I had encumbered the windows and the fire-place of my bed-room with plates full of *ulvaceæ*, *confervæ*, &c. It was a great pleasure to communicate to my professor my observations upon the *algæ*, and every time I did so, he said to me, “Look out for the period of fructification; the spores of the *algæ* cause intermittent fever. I have proved it every time I have studied them too closely.” As I cultivated my *algæ* in pure water, and not in water from the marsh where I had collected them, I did not attach any importance to these observations. I caught the disease. A month later, at the time of fructification, I was seized with a chill, my teeth chattered—I had the fever; it lasted six weeks, and I was finally cured of it by Dr. Alphonse Leclercq at Brussels, for I had left Liège.

When I again saw the Professor of Botany, Charles Morren, I told him what had happened to me. “You see,” he said, “it is as I told you; you are not the only one whom I have seen take the fever in this way.”—(*The same publication*, May, p. 497.)

“Brought out by the experiments and observations of Prof. Salisbury, these reminiscences, far from weakening them, confirm their reality and value, and ought to stimulate so much the more to their repetition. If truth belongs to all time and all places, it should be freed from the trammels of ignorance to take its legitimate flight and shine in all its glory. Witness the observations, the remarks, the trials made of grand discoveries, like the circulation of the blood, vaccine, auscultation, anæsthesia, before a single spirit or one powerful voice

has brought them to a productive issue, established them on a scientific foundation and fastened to them his name. All of the glory of a work, which is often one of an age, of centuries and of numerous laborers, is thus fixed upon one alone; and that of Prof. Salisbury will be great if he has definitively demonstrated the cause of intermittent marsh fevers."

It is with extreme gratification that we publish the above statements, for they go very far to establish the claim which Prof. Salisbury has set up—to mark *him* as the man, who, by a more methodical process, a more patient and elaborate investigation, a more complete train of inductive reasoning, has finished the discovery, and, to borrow the figure of our friend of the *Union*, stamped it with his name. Indeed, if Prof. Salisbury's paper contains the complete history of his researches, he would seem to be entitled to unusual credit; for it was not from any suggestive hint given by another, not from any unfinished work of other investigators, but from his own original, unassisted thought that he was led to take up the study which culminated in a discovery so complete in its details as to make its announcement to the world one of the most important in medical history.

Propagation of Cholera.—From the report of M. Briquet on Cholera, read to the French Academy of Medicine at the meeting of March 27th, we translate the following passages. In speaking of the disease as it has appeared in different epidemics in France, he says:—

"These epidemics have never broken out in the interior; they have always penetrated by the frontiers, sometimes by the north, sometimes by the east, sometimes by the south. Each one of them has followed a slightly different track, of which the constantly increasing irregularity has been in direct relation with the development of railroads and the rapidity of communications. Some departments of the interior have alone escaped up to the present time any visit from this pestilence, and, what is worthy of note, these departments are counted among the poorest and most unhealthy. . . . As for the mode of propagation of this disease, statements are extremely contradictory; at the same time it results from the analysis of very numerous facts, that the disease extends from neighborhood to neighborhood, from house to house, from commune to commune, &c. Cases not less imposing by their number and by their authenticity would seem to establish also that cholera is transmissible from individual to individual. Nevertheless the Commission does not wish to pronounce upon this difficult and obscure subject; it limits itself to the exposition of the facts, leaving to others the interpretation of them."

Preventive and Remedial Treatment of Epidemic Cholera.—The New York Academy of Medicine, at the meeting held June 20, 1866, adopted the following preamble and resolutions offered by Dr. E. Harris:—

Whereas, The New York Academy of Medicine has endeavored to promote among its fellows, and throughout the medical profession, a spirit of exact inquiry into the prevention and remedial treatment of epidemic cholera:

Resolved, That this Academy hereby expresses its confidence in the utility of general hygienic measures as the best means of protection against the pestilential

prevalence of cholera in any locality where it makes its appearance; and that the most thorough scavenging, cleansing, and disinfection, are absolutely necessary means of averting this pestilence in the cities and populous towns of our country at the present time.

Resolved, That in the judgment of the Academy, the medical profession throughout the country should, for all practical purposes, act and advise in accordance with the hypothesis or the fact that the choleraic discharge and "rice-water" discharges of cholera patients are capable, in connection with well known localizing conditions, of propagating the cholera poison, and that rigidly enforced precautions should be taken in every case of cholera to permanently disinfect or destroy those ejected fluids, by means of active chemical agents. Also, that with the same object in view, the strictest cleanliness of person and premises should be enforced upon all who have the charge of the sick; also, that all privies, water-closets, and cesspools, should be kept thoroughly under the control of disinfectants.

Resolved, That we regard the nature and the causes of cholera infection, so far as the sick or their discharges can propagate it, as being so susceptible of control that there should be no fear or hesitancy in the personal care of the sick and all that pertains to them.

Resolved, That immediate and thorough cleansing and disinfection of all persons, clothing, and things that have been exposed to the discharges or persons of the sick with cholera, constitute the chief end and object of any rational Quarantine or external sanitary police regulation against cholera.

Resolved, That for the purposes here mentioned, an external sanitary police is desirable in all great maritime and river towns, but that such sanitary regulations need not seriously embarrass commercial intercourse and the interests of trade.

Resolved, That the main source of protection against epidemic cholera at the present time is to be found in the vigilant and effective operation of sanitary measures, municipal, domestic, and personal.

Resolved, That the New York Academy of Medicine cordially invites the physicians of every city and village throughout our country to urge the immediate adoption of adequate measures of sanitary protection against the introduction and ravages of cholera, and that to this end we pledge to our brethren and the public the hearty and continued coöperation of this Academy.—*Med. Record*.

Although the above resolutions are not quite as strong as we should have liked, and are somewhat equivocal with regard to quarantine, we yet welcome them as evidence that the light is beginning to shine in some places in the profession where there was obscurity, to say the least, before.

The Cholera on Board the England and Helvetia.—The accounts of this outbreak, as reported at the time, attributed it to the German emigrants on board; and in the *Medical Times and Gazette* we find corroborative statements in a letter from Mr. Hamilton, of Liverpool, to the *Times*, quoted in the former. The writer says:—

"Without recapitulating the facts already published regarding this outbreak, I would draw attention to two or three points. It is clearly established that the cholera appeared first among the German passengers, and that it spread rapidly among them—satisfactory proofs that they brought the disease on board, as the *England* [the steamer that brought the cholera to Halifax] is quite a new vessel, this being her first voyage. Now, where did these Germans come from? From the very country where we learn by the latest intelligence that cholera has made its appearance—namely, Holland. They were East Frieslanders, and have been described to me as of the lowest class, stunted in growth, filthy in habits, dressed in linsey-woolen clothing, and, in

preference to the wholesome food provided for them, subsisting almost entirely on their *saur-kraut*, an abominable mess, of itself sufficient to disorder an Englishman's stomach. I mention these particulars, as, with overcrowding superadded, what happened only confirms an hygienic axiom, that if such conditions exist such results are pretty sure to follow."

And in a subsequent number of the *Times and Gazette* we find the following statement concerning the same emigrants and those in the *Helvetia* [the steamer bound to New York, which returned to Liverpool on account of an outbreak of the disease]. "The manager says that the emigrants by the *England* were the dirtiest of the whole lot which have passed this year. If he be correct, the statement is important, for the Dutch and Germans on board the *Helvetia* are the dirtiest people in their habits whom I have ever seen. The surgeons assure me that not unfrequently they rinse out with water the pan used for the reception of the excrement and urine of their children, and then employ it as a cup for drinking and for their dinner mess; and no power or persuasion will prevent them from leaving their dejections on the floors, the bedding, or the clothes."

The Death of Dr. Mussey—Action of the Medical Profession.—A meeting of the medical profession of Cincinnati was held at the Medical College of Ohio, June 29th, 1866. Dr. George C. Blackman stated the object of the meeting was to express the deep-felt sentiments of the profession of this city in reference to the life and character of the late Reuben D. Mussey; whereupon Dr. David Judkins was elected President, and Dr. Samuel Sexton, Secretary of the meeting.

On motion, a committee of five, consisting of Drs. John A. Murphy, George C. Blackman, M. B. Wright, John Davis and Jesse P. Judkins, were appointed to prepare a preamble and resolutions, expressive of the sense of the meeting. The following were then presented and adopted:—

"Whereas, In the providence of God our distinguished friend and brother, Dr. R. D. Mussey, has been removed to another world, we express our deep sense of sorrow. For more than fifty years he was a successful surgeon and physician, and a benefactor to humanity. He added greatly to the progress of the art and science of medicine. Equally distinguished as a physician and surgeon, his whole life was characterized by the highest sense of moral duty, and in all relations, professional and social, uprightness and purity of motive and action characterized him. Few men have passed in the profession a better or more useful life. To labor, with him, was a duty, and to do good, especially to the poor, was his highest pleasure.

"To many of us he was almost a father, who not only by his sound medical teaching, but the kind and tender interest, the sober advice, and the correct life, taught us to love him, and to imitate him in all good works. Known throughout this country, as well as in Europe, his loss will be regretted by all: therefore be it

"Resolved, That in the death of Dr. Mussey the profession of Cincinnati has lost a father, a great surgeon and physician, the city a good man, and humanity a true friend.

"Resolved, That a copy of this preamble and resolutions be forwarded to the family by the Secretary, with the sympathy of this meeting in their grief."

Numerous gentlemen of the medical profession availed themselves of the opportunity to bear witness to Dr. Mussey's great eminence as a surgeon and excellence as a man, among whom we may mention

Drs. Murphy, J. P. Judkins, George C. Blackman, M. B. Wright, and the President. Before adjourning, Dr. George C. Blackman was appointed to prepare and deliver before the profession and others, at his earliest convenience, an address on the life and services of Dr. Mussey.

Ready Method of Purifying Water.—We wonder that travellers do not carry with them a little bottle of solution of permanganate of potass, a few drops of which would speedily purify any water. A friend of ours, who has just returned from India, tells us he has derived the greatest benefit from its employment. At stations where the water was turbid, and tasted and smelt of decaying organic matter, he found that the addition of a few drops of the solution of the permanganate made it in a few minutes as clear and sweet as spring water.—*Medical Times and Gazette.*

THE Emperor of France has recently conferred upon Dr. J. Marion Sims the Cross of the Legion of Honor, in acknowledgment of his meritorious services rendered to the great cause of obstetrical surgery. If report speaks the truth, the highest lady in the Empire has had the benefit of his professional services.

Appointments.—Dr. Wm. H. Thorndike, of East Boston, has been appointed one of the Visiting Surgeons to the Boston City Hospital, in place of Dr. Charles H. Stedman, deceased.—Dr. H. B. Sands has been appointed Attending Surgeon at Bellevue Hospital, New York, *vice* Dr. Willard Parker, resigned.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 7th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	30	27	57
Ave. mortality of corresponding weeks for ten years, 1855—1865	37.4	33.8	71.2
Average corrected to increased population	00	00	77.64
Death of persons above 90	0	1	1

JOURNALS RECEIVED.—Medical Record, Nos. 7 and 9.—Medical Reporter, Nos. 7 and 8.—Medical and Surgical Reporter, Nos. 22-25.—New York Medical Journal for June.—Richmond Medical Journal for June.—Atlanta Medical Journal for June.—Southern Journal of Medical Sciences for June.—Dental Cosmos for June.—Druggists' Circular for June and July.—Journal of Materia Medica, Pharmacy and Chemistry for June.—Chicago Medical Journal for June.—Chicago Medical Examiner for June.—L'Union Médicale, Nos. 55-68.—Journal of the Society of Arts, vol. xiv., No. 702.—New York Eclectic Medical Review for June.—Buffalo Medical and Surgical Journal for June.—New England Medical Gazette for June.—Chemist and Druggist, No. 82.—Journal de Médecine de Bordeaux for May.—London Lancet for June.—American Journal of Pharmacy for July.

MARRIED.—In this city, June 28th, James B. Severy, M.D., of Farmington, Me., to Miss Emma A. Bass, of Boston.

DEATHS IN BOSTON for the week ending Saturday noon, July 7th, 57. Males, 30—Females, 27. Accident, 1—aneurism, 1—apoplexy, 1—disease of the brain, 3—bronchitis, 1—cholera infantum, 2—cholera morbus, 1—consumption, 12—convulsions, 2—croup, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 1—dysentery, 2—erysipelas, 1—scarlet fever, 1—disease of the heart, 3—infantile disease, 2—disease of the kidneys, 1—inflammation of the knee, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 2—measles, 1—premature birth, 3—suicide, 1—thrush, 1—tumor, 1—unknown, 6—whooping cough, 1.

Under 5 years of age, 22—between 5 and 20 years, 5—between 20 and 40 years, 13—between 40 and 60 years, 10—above 60 years, 7. Born in the United States, 40—Ireland, 13—other places, 4.

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No. 25.

CYSTIC TUMORS OF THE JAW.

[Read to the Massachusetts Medical Society, at the Annual Meeting held in Boston in May, 1866, and communicated for the Boston Medical and Surgical Journal.]

By J. MASON WARREN, M.D.

THE appearance of these tumors is generally very formidable, and the practice, for the most part, when the whole substance of the bone is dilated into a mere sac, almost entirely deprived of osseous substance, has been, until very recently, to remove the portion of the jaw involved by the tumor. When the tumor has grown simply at the expense of the outer table of the bone, either of the upper or lower jaw, without involving its whole substance, it has been customary to explore the cyst and remove a portion of it, causing inflammation and obliteration of the cavity, as in the case of cysts occurring in soft parts. Dupuytren, in his collected articles on Diseases of the Bones, has attached more importance to this question than any other writer, and illustrates by cases the effect of exposing the tumor by external dissection, removing a portion of the sac, and, by applications, effecting its obliteration. Professor March, of Albany, has written a valuable paper on this subject, in the "Transactions of the New York State Medical Society." Professor Gross and others have suggested the idea that in large cysts, which involve the whole bone, and which formerly were known under the name of "spina ventosa," the treatment should be the same. In one of the cases cited by the former gentleman, the extirpation of the bone was finally found necessary after this plan had been tried.

As to the causes of these diseases, they are various. In the jaw, they probably arise, in most instances, from irritation at the roots of the teeth; in the long bones, the head of the tibia for instance, from blows.

In 1862, I published, in the Boston Medical and Surgical Journal, a case occurring in an elderly woman of a cyst which involved the ascending portion and condyles of the jaw, and which I removed; not thinking it safe, in a person of her age, when the disorganization of the jaw seemed to be so complete, to run the risk of an experimental mode of treatment. Since that time, I have had an oppor-

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tunity of trying the conservative plan of treatment in two instances, which I propose shortly to relate.

Notwithstanding the principle which has been suggested or hinted at, for the treatment of large cystic tumors of the jaw, none of the writers on the subject have presented cases—where complete destruction of the bone has taken place, leaving nothing but a delicate cyst—which have been successfully treated by the method referred to. Dupuytren, in his work on “Diseases of the Bones,” gives several cases treated without excision; some of them, however, unsuccessfully. M. Nélaton has also written upon the subject, referring for cases to the work of Dupuytren, and advising the puncture of the cyst and the stuffing of its cavity with lint. Mr. Erichsen says, “when the cysts are so large that they have destroyed the integrity of the bone, or when they are associated with a large quantity of fibrous tissue, so as to constitute true fibro-cystic tumors, excision of the diseased bone must be practised.” Mr. Stanley, in his “Treatise on the Diseases of the Bones,” describes perfectly the affection, but does not allude to any other operation than the “removal of the tumor and of the portion of the bone from which it has arisen.”

In the two following cases, the treatment consisted in the puncture of the sac within the mouth, evacuating its contents, and at the same time obliterating its cavity by crushing in its walls; and lastly, in keeping up, by injections, &c., a sufficient degree of irritation to favor the deposition of new bone. The comparative mildness of this mode of treatment, and the excellent character of the results, combine to award the preference for this operation over excision, or even the large external incision adopted by Dupuytren.

Cystic Tumor of the Lower Jaw.

CASE I.—A young woman, æt. 25, with light hair, blue eyes, and delicate skin, applied to me, in the spring of 1862, on account of a large tumor involving the whole right side of the jaw above its angle. The tumor was of a globular shape, extended back under the lobe of the ear, forwards so as to encroach upon the cavity of the mouth, and upwards so as to press upon and somewhat to overlap the zygoma. The external surface of the tumor was smooth and shining, slightly cedematous, and she suffered somewhat from its pressure upon the surrounding organs. It had commenced, some years before, by a swelling at the root of the wisdom tooth of the right side, and the inconvenience caused by its pressure had become so great as to lead her to take measures for its removal.

Upon consultation, it was decided that a portion of the jaw would probably require removal, the tumor having been first exposed by an incision made inside of the mouth, to verify its character.

The following operation was performed, under the influence of ether. An incision was made in the most prominent part of the tu-

mor in the mouth, upon which a large quantity of glairy fluid escaped. Upon passing the finger into the opening, it was found that the whole jaw, at this point, with the articulating and coronoid processes, was expanded into a mere shell, at some parts as thin as parchment, and destitute of osseous substance. It was without solid contents. Under these circumstances, and considering the good health and youth of the patient, it was determined to make the attempt to save the jaw. A portion was therefore removed from the sac, and with the fingers the sides of the cavity were made to collapse, so as to come in contact with each other. In order to excite still further irritation, a bit of cotton cloth was forced into the interior, and the end left projecting into the mouth. A moderate degree of irritation followed, and in a day or two the pledget was removed, suppuration having commenced in the sac. The aperture was dilated from time to time by the introduction either of the finger or of a bougie, and the sac injected with tincture of iodine. In two or three weeks she left the Hospital, with the tumor reduced to about half its original size. From that time until the present, she has occasionally visited me at my house, and by keeping the external opening free, and occasionally irritating the interior of the sac, a solid mass of bone has been deposited anew, and the jaw has resumed somewhat of its original shape. The sac is in the way of becoming entirely obliterated.

In November, 1863, I again saw the patient, who came to consult me, not about herself, but about a friend. All signs of the tumor were gone, and the jaw had regained almost its natural shape; but a small aperture still existed at the site of the former opening into the mouth, from which a glairy fluid was occasionally discharged. She was quite well, and all the functions of the jaw were perfectly performed.

Subsequently, she applied to me with a similar tumor, but of a much smaller size, which had appeared anterior to the site of the first one. It was treated in a similar manner, with a similar result.

CASE II.—May 23d, 1863, Dr. Bennett of Uxbridge, Mass., brought me as a patient, a gentleman 56 years of age, with a large tumor on the right side of the face and parotid region. He was of a pale and yellowish color, much emaciated, and his aspect at first struck me as that of a person suffering from malignant disease. He said that, five years before, while eating, he had the sensation of something giving way in the neighborhood of the ascending ramus of the lower jaw. Shortly after, a tumor appeared in that region, which had slowly increased to its present size. Before making an examination, it was not easy to say whether the tumor was connected with the parotid gland or with the jaw. From the first commencement of the tumor to the present time, mastication, and for a good part of the time, deglutition, had been much interfered with. The tumor had been

examined by many physicians of experience, and by most of them considered as a parotid tumor, and, as the patient inferred, although he was not directly told so, of a malignant character. It extended backwards into the parotid region, upwards upon the face, and inwards, so as to occupy the right half of the palate, and was covered with a highly irritable mucous membrane, somewhat œdematous, and similar to what we often see investing malignant tumors in the mouth which have made their way through from the neck. During an examination, the patient said there had been of late a slight discharge of fluid into the mouth, and on making a careful inspection, a minute aperture was detected, at the point where the last molar tooth had been removed.

On introducing a probe at this point, a jet of serum, mixed with flakes of lymph, was projected to a considerable distance. I immediately enlarged the opening with the knife, so that I could introduce the finger. This was a matter of some difficulty, however, as the patient's jaws had been for a long time nearly closed in consequence of the disease. The finger penetrated into a large sac extending far out of reach, and on investigation it soon became evident that the whole tumor was formed by the expansion of the jaw from the development within it of an immense cyst. On withdrawing the finger, a barrier of bone was felt extending across the jaw, and behind it, under the first molar tooth, another smaller sac was discovered.

I now decided to treat this case in a similar manner to the preceding one. An oblong piece of about an inch in length and half an inch in width was removed by scissors, from the wall of the cyst, and, with a finger of one hand in the mouth, and a finger of the other on the outside of the face, the sides of the cyst were broken down, giving way under the pressure like parchment, with a crepitating noise. The projection of the tumor on the face, as well as within the mouth, became in a great measure effaced. There was a slight but unimportant effusion of blood. The patient returned home under the charge of his physician, with the intention of pursuing pretty much the same course as was adopted in the former instance. On account of his age, and the debility caused by the want of proper nourishment, and owing to the difficulty of mastication, he was ordered tonics and a nutritious diet.

About four weeks later, I again saw him. Everything had gone on well. The tumor was not more than a fourth as large as formerly, and bone had begun to be deposited in the walls of the sac. His health was wonderfully improved, and his complexion had assumed a healthy hue.

Dec. 8th, 1863.—I saw him for the third time, so altered for the better as scarcely to be recognized as the same person. The jaw externally had resumed its natural shape, and, on examination with the finger, its distinctive anatomical marks and processes could be

felt. On the inside, where the incision had been made, a deep sulcus was observed, lined with mucous membrane, into which a probe could be passed into the ascending ramus. There was no discharge to be detected, and the power of mastication was as good as ever. The only trouble he experienced was from the lodgment of food in this cavity.

Three months later, he was seen with the jaw in a perfectly healthy condition, having all its functions, and the only change from the normal state was perhaps a somewhat more solid and thickened condition than natural, with a sulcus existing at the back part, where the tumor had originated.

In 1866, he made me a visit, for the purpose of showing the complete success of the operation.

Cystic Tumor of the Upper Jaw.

CASE III.—A young lady, æt. 16, of English parentage, was brought to me in May, 1865, on account of a tumor which had been developing for the last three years, in the alveolus of the right upper jaw, just above the canine and bicuspid teeth. Three years before, the nerve of the canine tooth had been destroyed by arsenic, and the carious cavity filled with gold, the first bicuspid also being filled at the same time. Irritation soon commenced at the roots of these teeth, and gradually, and almost imperceptibly, a swelling appeared there. A month before she came to me, this tumor opened at its most dependent part, discharging a glairy fluid, which continued to exude until I saw the case.

The aperture admitted a small probe, which penetrated into a deep, smooth cavity. With the finger, the tumor from below appeared firm; but, when pressed upon under the gum, a degree of elasticity was distinguished.

I informed the parents of the young lady that the disease was a cystic tumor of the bone, and advised an operation. This was assented to. The patient was etherized, and a cut made into the tumor. The mucous membrane was then dissected up from its surface, so as to expose so much of the bony sac as would admit of a free opening being made into it, and the portion of bone was removed with scissors. The finger could now be passed freely into the cavity, which was quite smooth and entirely lined with membrane; it was not penetrated by the roots of any of the adjacent teeth. The cavity was stuffed with lint, in order to excite inflammatory action, for the purpose of obliterating the sac.

The operation had all the effect that could have been desired. In the course of a couple of months, granulations filled up the cavity, entirely obliterating it. She was completely relieved of the disease.

One or two other cases of cysts in the upper jaw I have treated in the same way, with a similar result.

A CASE OF LEUCODERMA.

[Read before the Boston Society for Medical Observation, June 4th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By HALL CURTIS, M.D., of Boston.

PATIENT is a short, wiry Irish groom, with a sallow, emaciated, almost cancerous look; he says he has always had very good health until three weeks ago (he came to me March 4th), when he noticed a small lump in the left groin, which gradually enlarged; not generally painful, though at times there was a sharp sting in it. He also states that he has felt quite chilly at times in the evening, though sitting close to the stove; at night, he is so cold that he heaps coverings on his bed. Awaking, he finds himself sweating profusely—steam rolling up from his arm as he protrudes it from the bedclothes. Three months before this time, he was troubled with occasional dizziness, and would often have fallen if he had not clung to some support.

When I examined him, I found in the left groin an irregular mass lying below Poupart's ligament, stretching obliquely along the line of groin; three inches in length by one and one fourth wide; not uniform, broken as it were into two folds by a furrow running lengthwise with the mass; not tender; hard, elastic, immovable; without fluctuation, impulse, or movement from coughing; not disappearing when on back, or by digital pressure. The skin covering the lower fold of a purplish color, as if pus was superficial. The mass could be nearly surrounded by the fingers.

The mass was certainly irreducible, and it apparently was not crural hernia—though this hernia is not always reducible, its sac being sometimes tied down to the surrounding parts, and changing in its new position to such an extent that it might readily be taken for an inflamed gland.

It was equally improbable that it was a psoas abscess, though the patient now complained of severe pain in his back; however, there were no abnormal features about spine, nor any tenderness at any point; the pain he complained of, situated apparently in the muscles lying on each side of column just below rim of pelvis, preventing his turning when in bed, but not at all troublesome when up, all movements being free. A psoas abscess, formed by pus flowing down from its source higher up, can be emptied by direct pressure; can, so to speak, be reduced.

It was not a bubo. The genitals were free from all suspicious ulcers, cicatrices or discharges. The patient had a gonorrhœa twelve months before. A peculiar discoloration of the penis was noticed, which will be mentioned again.

A varicose state of the femoral can also be reduced, and the hand placed on it can perceive a rustling when the patient coughs. Nothing of the kind was found, though the veins of each leg were in a well-developed varicose state, without ulceration.

It was judged to be caused neither by a cancerous growth nor by scrofulous glands. The former very rarely attacks the groin primarily. The latter generally are found on each side.

The condition of the man—his loss of flesh, his debility, the stinging pain, the rigors and sweating, the gradual development, and the impure state of the blood shown by the unhealthy aspect of abrasions or where splinters had torn the tissues, might cause us to lean towards the conclusion of its being a cold abscess.

The patient remembered, at last, that he had worn, a short time before he noticed the swelling, a pair of tight boots, which pained him exceedingly, the pain running up to the knee and thigh; so it seems probable that the swelling was caused by the inguinal glands, prone to be excited by the varicose state of the veins, being irritated by the painful constriction of the tight boot, and a subacute inflammation like that of a cold abscess ensuing.

The mass was gradually diminishing, after poultices and strapping. He has never had any inconvenience from it. It has never interfered with his walking. He has been able to work all day till he came to me.

With this, the patient presents the following condition:—skin cool, but breaks readily into perspiration; tongue perfectly clean, moist and warm; pulse varying from 124 to 84; slight cough; no expectoration; pulmonary sounds normal; cardiac at times rapid, continuous, but no valvular abnormal sounds; no headache; no nausea; no vomiting. During treatment, his appetite became excellent; he slept well; had no sweating at night; no recurrence of chills; bowels apt to be constipated.

My attention was attracted to the peculiar state of the skin, and the following notes were taken of a case of *Leucoderma*.

Patient 40 years of age; his complexion dark brown; hair long, straight, of coal-black lustre, with grey hairs scattered singly, but not occurring in patches; eyes dark brown, with sclerotic coats somewhat congested and yellow; a collar of dark-brown skin encircled the neck, with a concave border, its lower edge broken up into irregular but deeply marked concavities, running just above the clavicles.

The arms, on their posterior aspect, were generally dark (as you would expect to find them in a man who works with his sleeves rolled up); still, here and there, round patches of whitened skin were seen in the midst of the dark integument. The anterior portion of each arm was markedly discolored, this white surface extending irregularly into the dark skin of posterior aspect. Nothing peculiar about hands, excepting a few unhealthy ulcers from splinters. The chest and back were of a dirty mottle, the latter retaining its color better than the chest. The whitened skin was most marked over the abdominal region, where it spread largely, breaking into the natural dark pigment-skin of the lateral portion of the body. The integument about the umbilicus preserved its natural color, though

looking of deeper hue than the surrounding whitened skin, and being more pronounced on the lateral and lower parts, yet broken up, and fading into white.

The white patches encroached upon the dark skin, which lay along the right side, stretching almost in a continuous surface from the right crest of ilium up to axilla, dotted here and there with islands of white of varying shape and size. The axillæ were white. On the left side, the whitened patches had spread much more; only a dark patch remained over left iliac crest, and a narrow stripe in left iliac region.

The whitened patches ended in an irregular convex border on each thigh at the upper fifth. The legs were dark brown, with the exception of the popliteal spaces where the white tints again appeared. The upper two-thirds of penis were white, the lower third of prepuce dark brown—the upper portion of scrotum white and covered with white hairs. The pubis mostly covered with dark hair. On the lower part of scrotum where the skin was dark, the white hair seemed to be nearly equal to the dark.

On the centre of the lower lip was a dark colored patch, the size of half a pea.

It seems to me this case would be classed by many with the bronzed skin or Addison's disease—many of its prominent features resemble it, and might lead to that conclusion. Thus Dr. Addison writes—"The leading characteristic features of the morbid state to which I wish to call attention are anæmia, general languor and debility, remarkable feebleness of the heart's action, irritation of the stomach, and a peculiar change of color in the skin occurring in connection with a diseased condition of the supra-renal capsules. Now in this case the irritation of stomach is the only point which differs. The patient has a good appetite, good digestion, no nausea, no vomiting."

Dr. Addison again says, the discoloration pervades the whole surface of body, but is commonly most strongly manifested on the face, neck, superior extremities, penis and scrotum, and in the flexures of the axillæ and around the naval. In this case the deep coloration is found strongly marked, if you will, on the neck, superior extremities, naval, penis and scrotum, but the flexures of the axillæ and the popliteæ are light.

The discoloration has a method of affecting the body by a uniform discoloration of the whole integument; of course most marked where there is the most pigment—thus the axillæ and pubis are prominently affected. The face and hands also being exposed to the sun, early show the change. "In some cases the discoloration occurs in patches, or perhaps certain parts are so much darker than others, as to impart to the surface a mottled or somewhat chequered appearance." Dr. Wilks, of Guy's Hospital Reports of 1862, does not deny that the color may occur in patches, but he thinks he is correct in saying that all experience has hitherto shown that the discolora-

tion has been uniform over the whole of the body. In fact, in many of the cases given to disprove Addison's disease, the pigmentation has occurred in patches, and in others there can be no doubt that jaundice, pityriasis, ephelis, and ichthyosis have been mistaken for the discoloration. Of the 25 cases given by Dr. Wilks, all were very dark except four, where discoloration was slight, and one where there was no discoloration.

Pain in back is found in several cases. In three cases the spine was diseased and psoas abscess formed. In most cases the pain was situated in the gastric region, passing from the epigastrium through to the shoulders.

In the monograph of Dr. Addison it is stated, that symptoms may be observed in the course of the disease which denote disturbed cerebral circulation. Dr. Wilks more strictly considers the nervous centres to be impaired, and that the various symptoms result therefrom. Thus in these cases reported by him—delirium and convulsions occurred in 2—numbness of fingers in 2—one of them accompanied by neuralgic pains in limbs and delirium. In this case there were sudden attacks of dizziness with tendency to fall. In one case reported in the *Medical Times*, Jan. 24, 1857, by Dr. Barlow, loss of consciousness, and what are termed "fainting fits," were the earliest symptoms noticed.

Dr. Hutchinson, in *London Hospital Reports* for 1864, sums up the matter in the following words: "In morbus Addisonii we have a diffused darkening of the skin, with spanæmia, and greatly enfeebled health. The skin becomes darkest on the parts naturally supplied most liberally with pigment, on those exposed to the sun and air, or to accidental irritants (blisters, &c.); a disagreeable negro-like odor often attends the patient. No where except on mucous surfaces are there any abruptly margined patches."

In pityriasis versicolor, we have dark brown patches with well defined spreading borders on normally tinted skin. The disease is rare in the aged, and never occurs in children. The patches rarely occur in other places than the chest, back, abdomen, shoulders and upper extremities. A cryptogam can be readily demonstrated by the microscope.

In leucoderma, we have perfectly white, well defined patches, with spreading edges on a brown skin. The disease may affect any part, and is common on the forearms and hands. It may occur at any age. There is no cryptogam.

Dr. Watson has apparently confounded the two diseases, for in his description of "bronzed skin," he says, "sometimes the discoloration is deeper here and there, and gives a mottled appearance to the surface, and sometimes it is diversified with white patches in which the skin is blanched, is more white and colorless than healthy skin, like the nails and conjunctivæ, and the hair on the head, and on the pubes, corresponding to those spots, becomes perfectly white.

As Dr. Hutchinson writes, "Leucoderma commences in white points—these enlarge into small round patches—these increase, coalesce, and thus form irregularly shaped patches, but yet pursuing the convex border. Sometimes small islets of brown may be left on large areas of white." In our case at first sight the dark patches seemed much more apparent than the white, as if they constituted the abnormal state, but on closer examination they (the dark portions) constantly showed the concave border, and very markedly so; they were smooth, they were not raised above the skin, there were no loose scales of epidermis, nor any cryptogams, nor was there any itching. The white patches, whether as dots, as small separate patches, or largely spreading tracts, always presented the convex border, breaking into the natural dark skin, which splitting up before them seemed to melt away at their approach.

The patient said he had noticed these discolored spots first when a boy, some 30 years ago, when bathing in Ireland with his brother. Their attention was attracted by the white appearance of the thighs and side of chest.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

APRIL 23d.—*Cancer of the upper part of the Oesophagus, involving the Larynx, and opening externally.*—Dr. JACKSON showed the specimen, which Dr. Henry Cowles, of Saxonville, had brought to him this morning, and which was removed yesterday. The patient was a tall, thin, dark-complexioned, healthy woman, and knew of no case of cancer in her family. Age, 70 years. Rather more than a year ago, she began to have soreness of the throat, with dysphagia, and this went on increasing until death, so that from the time when Dr. C. first saw her, nine weeks ago, she could take no solid food. There was then a firm swelling, in the form of a ring, over the upper part of the larynx, and along the left side of the neck, extending somewhat to the right side, discolored, and looking like an abscess that would soon break. In a few days it opened like a carbuncle, by three or four small apertures, and discharged a considerable quantity of thin pus. About two weeks afterwards, a probe was passed in towards the left side, and over two inches; and Dr. C., suspecting a communication with the diseased surface, gave the patient a little indigo-water, which soon appeared externally and verified his diagnosis. Towards the last, about one third of all the liquid she took was discharged externally, but none seemed to pass into the trachea, so as to cause choking, until the last few days. The pain and soreness was very great, extending into the left side of the neck and ear. Much mucus hawked from the throat, and during the last two days some blood. From early in her sickness she was hoarse, and occasionally quite so, but never aphonic. No dyspnoea until the last three weeks, but afterwards in paroxysms

that would last for an hour, were increasing in frequency, and sometimes very severe. Under this disease she became very much emaciated and sallow, and kept her bed more or less the last three months, but retaining her appetite, though unable to swallow food.

The specimen shows an open and sufficiently defined ulceration of the œsophagus, commencing about an inch below the glottis, extending downwards two and a half inches, and involving nearly the whole circumference of the canal. At the lower extremity of the diseased portion, the morbid deposit appears in the form of a milky-white, soft, grumous or half liquefied mass of considerable size; and between the œsophagus and larynx, upon the left side, all the tissues seem to be indefinitely infiltrated with the same. The inner surface of the larynx, upon the left side and posteriorly, is extensively reddened, irregularly raised by this same deposit, and to a very small extent it appears to be ulcerated; there being a small opening through into the diseased portion of the œsophagus. The vocal cords seem but little affected. The thyroid cartilage was denuded to some extent; and, being ossified, it had become necrosed.

Dr. C. did not examine the other organs, as there was no evidence of their being diseased.

MAY 14th.—*Comparison of the Right and Left Clavicle.*—Dr. J. WYMAN alluded to the want of symmetry in the clavicles of the two sides of the body, and presented the following table as the result of the comparison of several pairs:—

PAIRS OF CLAVICLES.	LENGTH.		WEIGHT.	
	<i>Right.</i>	<i>Left.</i>	<i>Right.</i>	<i>Left.</i>
I.	5.35	5.70	20.150	23.100
II.	5.64	5.64	27.720	20.350
III.	5.55	5.50	24.150	22.540
IV.	5.40	5.57	10.410	10.240
V.	5.55	5.73	17.320	17.290
VI.	5.45	5.73	29.750	30.700
VII.	6.27	6.40	19.800	20.800
VIII.	5.94	5.94	27.200	24.850
IX.	5.86	5.86		

Length in inches and one hundredths. Weight in grammes.

Maximum length, 6.40 inches. Maximum weight, 30.700.

Minimum " 5.35 " Minimum " 10.240.

Right clavicle longest in 1 pair; left in 5; clavicles equal in 3.

Right " heaviest in 5 pairs; left in 3.

MAY 14th.—*Extensive Cancer of the Rectum.*—The specimen was received from Dr. George G. Tucker, of Westfield, who furnished the following history of the case:—

The patient was a farmer, 68 years of age, of industrious and temperate habits, most powerfully built, and belonging to a family that is remarkable for size, weight and constitutional vigor—no one of the number having ever suffered from cancerous disease. He has been treated for piles by various physicians and quacks for about a year, when, about ten months before death, he came under Dr. T.'s care. The sensation in the rectum he described as of weight, fulness or distension, and there was frequently a slight discharge of mucus or blood, but without much actual pain until about a month before death, when both the pain and the discharges were considerably increased,

with an almost total loss of control of the sphincter. The discharges had been constantly offensive, and towards the last were more so. Tenesmus was frequent, but never very distressing. Throughout the disease, the bowels acted pretty regularly, but always with pain; this last being severe during the last week, but it was apparently rather from tympanitic distension than from the disease itself, and was readily relieved by small doses of opium and conium. The appetite, which was always sufficient, was sometimes craving, and his food seemed to be well digested. He gave up work about a year before his death, but frequently rode short distances without pain or inconvenience, though walking caused an aching pain so long as he was under Dr. T.'s care; during the last three months he kept his bed. The pallid, straw-colored complexion of cancer was well marked; but the emaciation was less marked than would have been expected. Until the last two or three weeks there was no dropsical effusion, and then only in the right foot and leg, and to a slight degree.

The disease commences about two inches from the verge of the anus, and extends upwards four inches. The whole circumference of the intestine is involved, the limits of the disease are perfectly defined, and the general appearance shows unequivocally its malignant character, though there is nowhere any encephaloid, scirrhus or colloid deposit to be seen. No trace of the original tissue of the intestine could be distinguished upon the cut surface, but the whole had a soft, opaque, thickened, and perfectly disorganized look; the structure was loose or coarse, and infiltrated with fluid, with many quite small, superficial sloughs upon the surface. In one place the diseased structure was destroyed to the extent nearly of an inch, and at the bottom of the cavity was a large slough. The intestine immediately above the seat of the disease is healthy, excepting a number of quite small and superficial ulcerations; there being very little if any thickening or dilatation. Dr. T. found the diseased portion of the intestine so adherent to the sacrum that it was removed with some difficulty. The other organs he found healthy.

"The microscopic examination of a portion of the diseased rectum," by Dr. ELLIS, "showed that it was of a malignant character. The elements, it is true, did not resemble those usually figured in connection with cancer, but they were unlike any of the tissues of the body and were characteristic of none of the various morbid growths. It was rather their want of character than anything specific, which revealed their true nature. The cells were of every conceivable shape, none of them very large, and none with clearly defined nuclei or nucleoli. They resembled very closely such as I have seen in malignant disease of the stomach and uterus."

Dr. JACKSON remarked upon the correspondence between the microscopic and the gross appearances. There was nothing definite to the naked eye—none of the usual appearances of cancer any more than of the natural tissues of the body; and yet no one probably, who was accustomed to the examination of such cases, would hesitate to pronounce it cancer. This correspondence, he believes, is not unfrequently observed; and one who expects to find positive and definite microscopic appearances in every case of cancer will find himself very much mistaken. The opposite view in former years tended much to the discredit of microscopy.

Dr. J. showed a cast in plaster of the intestine that had been taken for the Cabinet of the Massachusetts Medical College, and colored after nature.

MAY 14th.—*Treatment of Erysipelas.*—Dr. COTTING read a paper entitled “Erysipelas; two cases illustrating its Natural History” (see this JOURNAL, Vol. Lxiv., No. 19). The patients were successfully treated with little if any medicine, only enough being done to render them comfortable.

Dr. JACKSON asked the opinion of surgeons who had been in the Army in regard to the treatment of this disease.

DRS. AINSWORTH and GREEN said it was generally considered as a constitutional affection, but military practice varied as much as civil.

Dr. ELLIS said he had lately treated an old lady with erysipelas of the face on the expectant plan, merely preventing suffering as far as possible; she had done perfectly well.

Dr. MINOR said that many cases seemed self-limited and would terminate well if let alone; but sometimes the disease tends to become chronic, and will be shortened by doses of quinine, often repeated.

Dr. J. BIGELOW said, “No one can tell at the beginning of a case of erysipelas what course the disease is going to take, nor can he tell what part of the body is to be next invaded, nor can he by any art arrest or prevent it from visiting any part; yet the disease in most cases like those now reported, stops after a certain time and at a certain limit, and the credit is apt to be given by illogical reasoners to whatever active treatment happened to be in use at the time.” He considered that the most beneficent part of a physician’s practice consisted in preventing patients from doing themselves harm. “There is a great difference between medicine and medication, between the science of medicine and the trade of medicine. The first, being founded in reason and truth, is most successful in the end. The second makes a common cause with quackery, and is apt to be outrun by it.”

Dr. BOWDITCH believed that, in regard to erysipelas, all external applications merely gave relief, and he doubted about the influence of quinine internally, at least in the majority of instances of the disease; but he did object to the utter scepticism of the day in regard to all remedies. He believed that, while it was incumbent on us to avoid the wholesale drugging of former days, it was also important to remember that all past experience in the use of remedies is not to be ignored. There were certain remedies, such as opium for example, about which there was no scepticism, but a firm belief that it would relieve pain, and he had observed that even the most sceptical used that drug very freely, too freely at times. There was scarcely any one of the more important remedies handed down to us by the older writers that could not be, at times, beneficially used. Dr. Bowditch now rarely, if ever, used the lancet; but he could not believe that it was right to take the position held by some, that the lancet should be wholly thrown aside. He had used it some few years ago with apparently marked success in giving prompt relief to severe general symptoms, and with shortening, or at least a mitigation of the subsequent course of the complaint. The patient was a young, stout, full-blooded Irish girl, suddenly taken, three days previously, with severe orthopnoea, cutting pains in the region of the heart, consequent on acute rheumatism. She had high fever and great restlessness. When seen, she

was panting, and in the greatest distress. The pulse was small, very quick, very feeble and uneven. The sounds of the heart were very obscure, the impulse feebly felt, and dulness on percussion over the heart was greater than usual. It was the third day of the attack. Dr. B. doubted at first whether, according to modern scepticism, he should bleed. Having no doubt what the fathers would have done, and believing that the apparent weakness of the pulse was owing to the heart being too heavily filled with blood, and feeling sure that the loss of a few ounces of blood in such a patient could do no real harm, he opened a vein and bled to about twelve ounces, with the most satisfactory and immediate results. The pulse fell and became fuller and regular; the pain in the side disappeared, the dyspnœa was relieved, and although the disease was not *strangled*, it ran a mild, short course, and without a trace of the severer symptoms noticed before the venesection. Dr. B. could not but believe that the venesection had a most beneficial influence. He also stated the details of his treatment during the subsequent course of the disease.

Dr. BIGELOW appealed to Dr. Bowditch to say whether in the course of his practice he had not treated a dozen other cases with the same remedies, and without any benefit or arrestation of the disease. The case related appeared to him an exception, and not a general rule. Acute rheumatism in any part or organ is often relieved spontaneously, by metastasis, in half an hour. Dr. Bigelow was not sceptical, as seemed to be supposed, in regard to the usefulness of medicines in palliating this and other diseases. He was in the habit of giving medicine almost daily, and sometimes, though rarely, resorted to venesection in very acute diseases. It fails continually in rheumatism, as it does in apoplexy and paralysis. He had known hemiplegia to come on during venesection, after the patient had bled half a pint and more from the arm. The late John Quincy Adams was suddenly prostrated with hemiplegia. He refused to be bled, and was entirely recovered in three months.

Bibliographical Notices.

Cholera ; Facts and Conclusions as to its Nature, Prevention and Treatment. By HENRY HARTSHORNE, A.M., M.D., Member of the American Philosophical Society ; Professor of Hygiene in the Auxiliary Faculty of Medicine in the University of Pennsylvania, &c. 32mo. Pp. 70. Philadelphia : J. B. Lippincott & Co. 1866.

Asiatic Cholera. By F. A. BURRALL, M.D. "Glean and gather among the reapers." 24mo. Pp. 155. New York : William Wood & Co. 1866.

BOTH of these little volumes have been prepared by their authors, of course, as their contribution to the current medical literature, to meet the urgent demand which everywhere exists to learn all that can be learned of the dreaded epidemic, whose arrival on our shores has been so confidently looked for during the present season.

Dr. Hartshorne writes from his own experience with cholera in Philadelphia in 1849, 1850, and 1854, and in the latter year in Colum-

bia, Pa., also, and from an extended reading of the literature of the subject. Beginning with a definition of the name of the disease and a condensed account of the appearances after death, the author gives a concise history of cholera from the year 1629, the earliest date at which a distinct description of the disease was given, by Brontius, a Dutch physician at Batavia. Then follows his account of the disease itself, under which about half the space of the work is devoted to the question of causation—the question which of all others, in its bearing upon the question of prevention, occupies the medical mind of this country most at the present time. Like most others who arrived at fixed opinions during former epidemics, especially if they put these opinions in print, Dr. Hartshorne avows himself a sceptic as to the contagiousness of cholera, and even goes so far as to say that it “has never been shown to be contagious in a single instance” (p. 23), his definition of a contagious disease being that it is so “only when its cause is a material produced by a morbid process in the bodies of the sick, and generating the same disease in those whom it reaches, either by contact or at a distance through the air.” He brings forward a good many cases in support of his views, some of which have been shown to be as clear cases of disease propagated by contagion as possible; such, for instance, as the outbreak of cholera on board the *New York*. The recent instances of the disease on board the *England* and *Virginia* he also quotes in the same connection, cases which, in our opinion, are equally weak as arguments. The author admits that cholera is *infectious*, and so admits all, in our opinion, that is necessary to prove the importance of all sanitary precautions, quarantine included. The practical question is, is cholera communicable? If so, let it be kept, by every possible humane precaution, as far as possible from healthy communities. The author gives a synopsis of the various methods of treatment, but seems to rely most on small doses of stimulants and anodynes, with external warmth and rest. This work concludes with the following remarkable paragraph, which is almost identical with one in a recent article by one of our most respectable physicians, and which excited not a little mirthful comment in the community (to whom it was addressed through the columns of a newspaper) at the time. “Cholera is not, after all, a hard death to die. To me, it appears one of the easiest modes of exit from the world.” Perhaps it may be; but we must be excused for doubting whether the symptoms before the final exit, the incessant vomiting, the racking cramps, &c., make, in any sense, the path to that exit a smooth or an easy one. And then, again, the trouble is, that people *don't want to die*.

Dr. Burrall's work is much more to our taste, and, in our belief, much more in accordance with the strict truth than Dr. Hartshorne's. The author announces himself at once as a firm believer in the contagiousness of cholera. But a small portion of his work is given to the literature of the disease, except as it is directly connected with the history of its appearance at particular places or the special opinions of medical writers on the subject. The author gives an account of the various epidemics which have become matters of history, and then proceeds at once to the discussion of the question of contagion. We think he makes out his case. Our own views are pretty well known to our readers, so that we do not, perhaps, require any new

arguments to assure us that he occupies the right ground. We do not care to follow the author in detail through his work. His advice with regard to sanitary precautions, disinfectants and the like is judicious, and his views as to treatment accord with those of the wisest members of the profession. A good many facts are given in the Appendix and elsewhere relative to the present epidemic in Europe. As a whole, we commend it heartily as a wise, practical and very interesting book. It is very neatly printed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 19, 1866.

ELECTION IN HARVARD UNIVERSITY.

THE present week will be marked by an event of great importance to the cause of education. The oldest and leading institution of learning in the country, for the first time, is at liberty to govern itself, free from the restraints of political and local prejudices. By the action of the Legislature Harvard University has been allowed to sever her connection with the State, and the first act of her independence will be the election of Overseers by the Alumni to fill the places of those of the old State board, whose term of office has expired. Thus in four years the entire government of the University will be in the hands of those who are chosen by a body supposed to be her best friends, and the best judges of her interests.

That reform has long been needed in the conduct of some parts of the college is known to all who have any interest in its management or in education, and the greatest care should be exercised in the selection of those who are to have the control of its affairs in future. There is great danger that the position may be given as a reward for material benefits received, or in anticipation of those hoped for, to those not fitted to hold it, and that money instead of merit shall come to be considered a qualification. There is another danger which must be carefully guarded against, or the popular and representative spirit of the election will be lost, and a new power be inaugurated, which will be a greater evil than the old weakness of political elections. It is the rule of a clique which will aim at the control of the University by the nomination of candidates selected to carry out its plans. Such a body may entirely defeat the unsuspecting efforts of the great mass of the Alumni who would see a more liberal spirit manifested in the management of this seat of learning.

There are matters of great importance relating to the fundamental principles of education which must inevitably be agitated, and the settlement of which will change in great measure the character of the College. They already and largely occupy the thoughts of some of the most experienced men of science in England and at home, and their views have been expressed in no uncertain terms. The words of Professor Huxley, so recently laid before our readers, "it is the duty of every man to lift up his voice against the scandalous perversion of human time and human ability under the system of gerund-grinding

which now prevails," and the important paper of Dr. Bennett on Medical Education, just published, are but the echo of the spirit of the admirable address of an older teacher of our art amongst us before the Institute of Technology. The undergraduate department must be made a preparatory school for the higher professional departments more fully than it has hitherto been. It can be made such, and still maintain its high character for belles-lettres by making the studies of its last two years almost entirely optional and fitted to the future work of each student. Its management should be more under the direction of those who best know the deficiencies of those who leave it for the more advanced courses of study, and who are obliged to waste so much of their time in the elementary instruction which should have been previously given. It should no longer be allowed to control appointments in other departments, nor should the Corporation be permitted to negative plans which have received the unanimous approval of any faculty and the whole profession it represents. Such an instance has recently occurred, which has materially interfered with the advancement of medical education in New England, and such narrow-minded tendencies should not be forgotten in the coming election. Men should be chosen from each profession to fill the position of Overseers, and we trust that the numerous Alumni among doctors of medicine will see that their interests are strongly and fully represented in future boards.

There is another matter of reform to which we hope the new government will turn its immediate attention; viz., the present condition of the committees for examination in the various branches of instruction and departments of the University. They are in many instances a disgrace to her. Men have been placed upon some of them who know nothing whatever of the subjects thus associated with their names, and whose appointment is an insult to the men of learning and science who properly occupy this important position.

Causes of the Position of the Fœtus.—Prof. von Scanzoni, of Würzburg, sums up a paper on the causes of the frequency of the head-presentation in the human fœtus, with the following conclusions. 1. The frequency of the cranial position of the embryo during pregnancy is not explained by Simpson's theory of reflex movements of the fœtus; nor, as alleged by Dubois, by its instinctive movements; nor by the hypothesis of Carns, according to which the fœtus lives a mere vegetable life within the uterus. 2. The position of the fœtus is dependent on the operation of various circumstances: viz., *a*, the force of gravitation; *b*, the form of the uterine cavity; *c*, the form of the fœtus; *d*, the quantity of amniotic fluid; *e*, the contractions of the uterus during pregnancy and the first stage of labor; and *f*, the active movements of the fœtus. 3. Up to the time when the placenta is developed, the embryo may assume any position, vertical or horizontal, in the cavity. 4. Immediately after the formation of the placenta, the fœtus is suspended at its lower end by a very short umbilical cord to the upper part of the uterus, and the large heavy head hangs downwards. 5. This position may, in favorable circumstances, be maintained during the whole of pregnancy; but much more frequently it undergoes changes into other positions, from which,

as a rule, a return is finally made to the head-presentation. 6. The first of the causes influencing the position of the fœtus is the rapid growth of the umbilical cord, which becomes even longer than the uterus, and thus is no longer capable of retaining the lower part of the body of the fœtus in the upper part of the uterus. 7. The fœtus may nevertheless constantly retain a vertical position with the head directed downwards, since the centre of gravity falls within the large head, and the relatively large quantity of amniotic fluid keeps the fœtus floating until the middle of pregnancy, so that the heaviest part gravitates towards the lowest part of the circumference of the uterus. 8. About the middle of pregnancy, in consequence of the rapid development of the body of the fœtus, the centre of gravity falls from the head to the upper part of the thorax, and changes the gravitative relations of the fœtus. 9. If at the same time, as usually is the case, the uterus grows more in its longitudinal than in its transverse diameter, its walls retain the fœtus in the vertical position; since it has become too long for its long diameter to find room in the transverse diameter of the uterus. 10. But if the uterine cavity become more roomy, the head may be inclined to either side, so that an oblique or even a transverse position may be assumed. 11. As the fœtus increases in further growth, the quantity of amniotic fluid diminishes in proportion to the size of the fœtus, and, if the lateral walls of the uterus be not unusually yielding, the fœtus is compelled to resume a vertical position. 12. If the head have hitherto remained the deepest part, it will be the point which in the perpendicular portion of the uterus comes most readily over the os uteri. 13. When the fœtus lies transversely, the manner in which the child presents depends partly on the resistance of the uterine walls, partly on the active movements of the fœtus induced by this resistance, but especially on the concurrence of contraction in the uterus. 14. In the transverse position, the head generally lies lower than the breech: this, and the circumstance that the centre of gravity of the fœtus lies nearer to the head than to the pelvic extremity, render it plain how, when the pressure exercised by the sides of the uterus on the head and breech of the fœtus becomes troublesome, the head is directed downwards more readily than upwards when the fœtus assumes the perpendicular position. 15. The action of the uterine contractions on the transversely lying fœtus varies, according as the contractions originate in single parts of the uterus or over the whole organ. 16. Partial contractions, as a rule, set in most strongly at the points of the uterine wall which are in immediate contact with the head and breech of the fœtus; they act directly on the fœtus, and, if it be only moderately movable, very readily bring it into the vertical position; and the head, generally lying lower, enters the strait of the pelvis more readily than the breech, the expulsion of which requires a more complicated mechanism than that of the head. 17. The contractions extending over the whole uterus act most directly on the pelvic end of the fœtus, which is usually directed upwards, even in the oblique and transverse positions. If the lower section of the uterus contract powerfully, this circumstance may, in spite of the downward pressure exerted on the breech by the fundus uteri, succeed in bringing the head nearer to the middle line of the uterus and thus establishing a cranial presentation; and this action is essentially supported and

favored by the greater firmness and power of resistance on the part of the foetal body. 18. If the contraction of the lower section of the uterus be less energetic, and the foetus be at the same time young, soft, and compressible, the breech, under the simultaneous angular bending of the foetus, is pressed still more deeply into the abdominal region, the head is pressed still further from the axis of the uterus, and the transverse presentation is thus finally converted into one of the breech or foot. 19. Hence the breech and foot presentations met with in such disproportionate frequency in abortion and premature labor are not primary positions, but are, as a rule, secondary, brought about by the contractions of the fundus uteri. 20. From the observations already made, it appears that the most various influences occurring during pregnancy may give rise to manifold changes of the position of the foetus, but that nature generally succeeds in bringing the head over the os uteri, where it is usually found lying during the last six or eight weeks of pregnancy. 21. Nevertheless, changes of position are not especially rare even at this late period of pregnancy; and their occurrence is favored if the quantity of amniotic fluid be great, if the embryonic cavity be roomy, if the uterine walls be yielding, and the active movements of the foetus be energetic. The partial contractions of the uterus, which set in more frequently and with greater intensity in the last weeks of pregnancy, also exercise a powerful influence on the position of the foetus. 22. In entirely normal relations, the deviation of the head after having once entered the pelvis during the last weeks of pregnancy, is hindered when the quantity of amniotic fluid be remarkably diminished in proportion to the size of the foetus, so that the size of the amniotic cavity and the mobility of the foetus is diminished; and also when there is an arrest of the development of the uterine walls, so that the organ is extended by the growing foetus. But this stretching of the walls of the uterus diminishes its yielding power, and, by causing it to envelop the body of the foetus more closely, renders difficult the occurrence of any important change of position.—*Brit. Med. Journal*, March 17, 1866, from *Wiener Med. Wochenschrift*, Jan. 20, 1866, and *American Journal of Medical Sciences*.

Massachusetts Medical College.—The following gentlemen received their degrees from Harvard University on the 18th inst.:—

NAME AND RESIDENCE.	THESIS.
Amory, Robert, A.B., Brookline,	<i>Hydrocyanic Acid.</i>
Babin, Hosea John, A.B., U. S. Navy,	<i>Quinine.</i>
Carey, Robert Hillary, Halifax, N. S.,	<i>Trephining.</i>
Clark, John Laing, New Bedford,	<i>Physiological Action of Mercury.</i>
Collins, William Droien, A.B., Fall River,	<i>Physical Sympathies.</i>
Colter, Newton Ramsay, Fredericton, N. B.,	<i>Alcohol.</i>
Crocker, John Myrick, Provincetown,	<i>Asiatic Cholera.</i>
Day, Albert, Boston,	<i>Methomania.</i>
Evans, Branch Eldridge, Picton, N. S.,	<i>Alcoholismus.</i>
Flatley, Thomas William, Boston,	<i>Fever.</i>
Gleason, John Lancaster, Barnet, Vt.,	<i>Acute Rheumatism.</i>
Granger, Reed Bartlett, Boston,	<i>Irregularities of the Teeth.</i>
Green, John Orne, A.B., Lowell,	<i>Imperforate Rectum.</i>
Greenough, Francis Boott, A.B., Cambridge,	<i>Nutritive Enemata.</i>
Hammond, Henry Louis, A.B., Providence, R. I.,	<i>Hygiene.</i>
Kempe, Charles Parke, A.B., Boston,	<i>Etiology of Cholera.</i>
Knight, Frederick Irving, A.B., Newburyport,	<i>Sphygmography.</i>
Mackin, Charles, Jr., Boston,	<i>Differential Diagnosis.</i>
Nichols, Arthur Howard, Boston,	<i>Injuries of Hip-joint.</i>

Oakes, Milledge, Bridgewater, N. S.,
 Pettingill, Edward Henry, Saxton's River, Vt.,
 Pierce, Gardner Carpenter, A.B., Abington,
 Pratt, Calvin, Bridgewater,
 Porteous, James George,
 Robbins, Albert Orlando, Providence, R. I.,
 Thorndike, Charles Howard, Limington, Me.,
 Warren, John Collins, A.B., Boston,
 Whipple, Jeremiah, A.B., Cumberland, R. I.,
 Wiggin, Oliver Chase, Providence, R. I.,
 Whidden, Philon Currier, Boston,

Variola.
Typhoid Fever.
Diphtheria.
Surgical Diagnosis.
Asiatic Cholera.
Empiricism.
Spina Bifida.
Constipation.
Meddlesome Practice.
Physiology of Repair.

Medical Intelligence.—The International Ophthalmological Congress, which was to have been held at Vienna in August, has been indefinitely postponed on account of the war.

Germany, with a population of 46,000,000, contains 141 insane asylums. The number of their inmates is 19,550.

At a recent meeting of the Vienna Academy of Medicine, Prof. Hebra remarked that the pain of cauterization by nitrate of silver in lupus was materially diminished by Richardson's method of local anæsthesia, but that of the galvano-caustic was exaggerated by it. With regard to the scale of sensibility of different portions of the skin, he stated that the angle of the lower jaw and the regio-supra-hyoidea were the most sensitive to such cauterization. Prof. Patruban referred to the remarkable discovery, hitherto unexplained, that the nervus auriculo-temporalis of the third branch of the fifth pair retained its sensibility longer than any other in the deepest chloroform-narcosis.

According to the *Journal de Chimie Médicale*, the proportions of nicotine contained in the tobacco of various countries is as follows: Lot 7'96, Alsace 3'31, Virginia 6'87, Kentucky 6'09, Maryland 2'29, Havana 2'00 per cent. If a bit of cotton impregnated with tannic acid be placed in the tube of the pipe or porte-cigare, the passage of this poisonous principle will be prevented.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 14th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	51	39	90
Ave. mortality of corresponding weeks for ten years, 1855—1865	40.8	35.9	76.7
Average corrected to increased population	00	00	83.65
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—Treatment of Intermittent Fever, by Dr. B. Carpenter, of Pawtucket, R. I.

MARRIED.—In this city, 17th inst., Dr. Fitch Edward Oliver to Miss Susan Lawrence, eldest daughter of the late Rev. Charles Mason, D.D.

DEATHS IN BOSTON for the week ending Saturday noon, July 14th, 90. Males, 51—Females, 39. Abscess, 1—accident, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 3—burns, 1—bronchitis, 2—cholera infantum, 6—consumption, 14—convulsions, 5—debility, 1—diarrhœa, 2—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 2—scarlet fever, 1—typhoid fever, 1—disease of the heart, 2—infantile disease, 1—intemperance, 1—disease of the kidneys, 2—inflammation of the lungs, 4—marasmus, 2—measles, 1—old age, 1—paralysis, 2—premature birth, 1—puerperal disease, 1—purpura, 2—rheumatism, 2—disease of the spine, 1—suicide, 1—stroke, 9—syphilis, 1—unknown, 6.

Under 5 years of age, 39—between 5 and 20 years, 6—between 20 and 40 years, 23—between 40 and 60 years, 13—above 60 years, 9. Born in the United States, 55—Ireland, 25—other places, 10.

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THURSDAY, JULY 26, 1866.

No. 26.

SOME CONSERVATIVE MEASURES REQUIRED IN CERTAIN
DISEASES OF THE EYE.

[Read to the Massachusetts Medical Society, at the Annual Meeting held in Boston in May, 1866, and communicated for the Boston Medical and Surgical Journal.]

By HENRY W. WILLIAMS, M.D.

THERE are certain conditions of the eye, now far better understood than formerly, which not only call for alleviation by the resources of our art, but in which it is often in the power of the general practitioner to avert future serious injury, or even loss of vision, by advising early preventive, or, as they might not improperly be termed, hygienic measures.

As several of these are connected with anomalies or disturbances of the refractive power of the eye, I will briefly state the conditions under which vision is exercised in the normal state.

When at rest, a healthy eye is adapted to bring parallel rays to a focus upon its retina, so as to form a distinct image there. If the rays are divergent (as are all rays coming from near objects), a normal eye must exert its faculty of accommodation in order to adapt itself, by a change of form and increase of convexity of the crystalline lens, to bring such rays to a focus in the same manner as if they had entered the eye in a parallel direction.

Presbyopia.—The first question which it is proposed to consider, is one which comes home, at some time in their lives, to most of the members of this honorable body, and which must therefore refer to a normal, not a pathological phenomenon. "Do I need glasses?" "Is it better to put on glasses?" asks many a possessor of a healthy pair of eyes. The difference of opinion among well-informed persons as to this point must be my excuse for explaining in a few words when and wherefore they are needed.

It has been already stated that in order to see small near objects, an effort of accommodation is necessary; which is accomplished by the agency of the ciliary muscle and the crystalline lens. But, from the period of youth to advanced age, the crystalline becomes gradually harder and harder, and less susceptible of a change of form, and at about the age of 45, in most persons who are not short-sighted, its con-

vexity can no longer be sufficiently increased by the action of the ciliary muscle to effect the requisite refraction for reading at the ordinary distance. But, if the page be more strongly illuminated, or the book held farther off, so as to render the rays less divergent, reading may still be continued for a time. Gradually, however, reading, writing and sewing become more difficult, and are accompanied and followed by sensations of fatigue in and around the eyes.

Evidently, it is absurd to contend against this change, and endeavor to force the eyes to do, painfully, what the aid of a glass will enable them to do with ease. The accommodative power is really lessened—we cannot restore to the hardened crystalline the flexibility it possessed in youth—and a strained continuous effort to perceive small objects can only favor the production of morbid changes in the nervous structures. But, by placing before the eye a convex glass of low power, we take away the necessity for so much accommodation by rendering the rays nearly parallel before they reach the eye; and can thus relieve it from fatiguing effort, and place it, virtually, in a normal condition.

Patients are often told, by their friends, that if they can do without glasses for a while they will never be obliged to wear them—and that such or such a person, much their senior, has never needed glasses because he would not put them on at the usual period of middle life. Such seeming exceptions are found in those who were, though perhaps unconsciously, more or less short-sighted in early life, and they serve to confirm rather than invalidate the rule laid down.

When asked, therefore, by patients, “ought I to wear glasses?” if we find symptoms of presbyopia or old-sightedness; if we learn that the person requires more light, and places objects at a greater distance than formerly, without even then being able to see with perfect distinctness; and if we ascertain upon trial that these symptoms are entirely relieved by convex glasses—we reply unhesitatingly, yes! advising, however, that the glasses should be only of such power as to render objects distinct at a convenient distance.

The same reasons which require that glasses should be assumed at a proper time demand also an increase of their power, as age advances, whenever those previously worn begin to be insufficient to compensate for the constantly increasing inaptitude of the crystalline.

Asthenopia.—We meet with frequent instances where inability exists to use the eyes continuously upon small objects, even much earlier than the middle period of life, and before the crystalline lens has undergone transformation. This is termed asthenopia, and depends mostly upon two causes—either a loss of accommodation resulting from enfeebled power in the ciliary muscle (which often ensues after measles, diphtheria, or exhausting diseases), or a deficient refractive power of the eye depending on a too short axis in its antero-posterior diameter. This latter condition, which is term-

ed hyperopia, or hypermetropia, is by far the most frequent cause of asthenopia, and, as will be shown, often requires convex glasses for its complete relief.

Hyperopia.—The symptoms of asthenopia depending on hyperopia are so graphically given by Prof. Donders, that I copy his report of the examination of a case:—

“Miss H., aged 19, is announced. She has a florid look, clear eyes, without a trace of disease, blue iris, mobile pupil, not a very deep globe, flat margins to the socket; the visual axes appear to diverge. I suspect asthenopia. I make her read and bring the book to 6”: reading becomes difficult; at 5” it is impossible. There is either hypermetropia or diminished accommodation. My eye falls on those about her; I see a brother with convergent strabismus. This was decisive in favor of hypermetropia. ‘You cannot persevere with your work?’ She answers, ‘No.’ ‘On exertion you get a feeling of tension over the eyes, press upon the part with the hand, rub over the closed eyes, and then it passes off, but only for a short time?’ ‘Precisely,’ is the answer. Confidence is gained. ‘You have no pain in the eyes?’ ‘At a distance you see well?’ ‘Yes.’ ‘After a long rest you can continue your work better?’ ‘Yes.’ With a glass of 18 inches’ focus she distinguishes well at a distance, and on moving the glasses, for the first moment not so well; with 16 not so acutely as with 18; with 24 not more acutely; between the two eyes there is little difference. Ophthalmoscopically, all is well. I learn further, that for some years the inconvenience felt in working has been always increasing; that formerly, when weakened by fever, she could for a time neither read nor sew; that she once tried a pair of spectacles, but was strongly cautioned against wearing them. She gets spectacles of 16 inches to work with, with a recommendation now and then to pause for a little, and at first not to do much in the evening. At the end of a week she has forgotten her ailment.”

Hypermetropia is usually hereditary. Young persons in whom this conformation of the eye is present, are compelled to use a portion, often a large portion of their accommodative power in bringing parallel rays from distant objects to a focus upon the retina, and this power is thus kept constantly in exercise, leaving very little accommodation to assist them in seeing small near objects. As in the case just reported, glasses are often needed for seeing even distant things, in order to obviate the fatigue attending continuous accommodative effort, and in many instances they are indispensable for near vision, especially if the eyes are to be continuously used.

Strabismus.—It has been proved by Prof. Donders that hypermetropia is the almost invariable accompaniment, and, in fact, cause of convergent strabismus. A word respecting this latter affection may therefore be appropriate in this connection.

With the action of the ciliary muscle upon the crystalline lens, in effecting accommodation, to which allusion has already been made,

we have an associated auxiliary action of the internal recti muscles of the globe. The hyperopic eye, having to employ a great part of its accommodative power in obtaining clear perception of distant objects, endeavors to reinforce this power, when looking at things near the eye, by bringing into play the internal recti. Convergence is thus produced, which, at first a temporary, becomes at length, by frequent repetition, a confirmed squint.

Up to a certain point, the strabismus may be remedied by removing the necessity for convergence by means of convex glasses; but if the case has been misunderstood in the beginning, or the child is too young to allow of the choice of glasses, and the abnormal deviation of the eye is allowed to continue unrectified, other consequences follow: the eye which squints most, being turned in such a direction that images are not found on a portion of its retina corresponding to the spot where the image falls in the other eye, gradually ceases to take notice of the less distinct impression thus received, and loses, in a greater or less degree, its perceptive power; becoming at length incapable of any distinct vision. It follows, therefore, that the deformity existing in cases of strabismus is but the least of the evils inherent to it, and that it is an affection by no means to be temporized with. No mistake could be greater than that of parents who delay having an operation performed upon their children until the child shall be old enough to judge for itself; as by that time the visual power will have become so far enfeebled that it can never be fully restored; and, though the operation may still be done for the improvement of the looks, it no longer confers the greater benefit of much improved vision.

Myopia.—Myopia, or short-sightedness, was formerly regarded as merely an infirmity, and in fact many persons congratulated themselves on being the subjects of it, supposing their eyes to be stronger than those of others. We now know that this is an affection of the gravest character when it exists in a high degree—involving, if not most carefully managed, great danger of ultimate loss of vision.

As hypermetropia is due to abnormal shortness of the antero-posterior axis of the eyeball, so myopia depends on an elongation of this axis—the extension taking place, mostly, at the expense of the posterior half of the globe, and the eye assuming the form of an egg.

These changes are sometimes uniform, the external tunics gradually yielding, and the retina accommodating itself to their distension until its nervous elements, diluted by being thus spread over a larger surface, become enfeebled in their perceptive power. But a special tendency to give way exists in that portion of the sclerotica which surrounds the entrance of the optic nerve, and a cup-like protrusion backwards is there found, to which we give the name of posterior staphyloma.

In proportion as changes occur, the tunics of the eye become less

and less able to resist further encroachments, and other secondary alterations may finally supervene, involving the retina, choroid, vitreous and crystalline.

The staphylomatous transformation may be clearly seen, by means of the ophthalmoscope, in most of even moderately near-sighted eyes; and its progressive development, should this take place, as well as the subsequent phenomena which are liable to occur, may be watched by the aid of the same instrument.

Most myopic eyes are so by inheritance, and the period at which progressive staphyloma is most liable to be developed, is that when the eyes are, as a rule, most used for small objects—say between 12 and 20 years of age. If this period be safely passed, the danger that pathological changes will be set up is greatly lessened; but it should be borne in mind that the incautious use of the eyes during adolescence may induce a train of morbid processes which no subsequent prudence and no treatment can arrest.

At first, such a patient is only conscious of increasing short-sightedness, which seems to be relieved by taking stronger and stronger concave glasses; but, if at this time we test the distinctness of vision, we often find it considerably below the normal standard, even with the glasses which render most assistance. No other symptoms may be observed as a warning of impending misfortune, till, perhaps, about middle age, or even as early as 30 years, vision is suddenly almost entirely lost, and, on looking with the ophthalmoscope, we find that the retina has become separated from the choroid by effusion beneath it, or opacities have been formed in the vitreous humor.

It lies with the family physician to prevent these evils. If consulted by patients who wear strong concave glasses, indicating a high degree of myopia, he may render them infinite service by cautioning them against too long continued use of their eyes (especially with the head bent down, as in writing or sewing) or using them in an insufficient light;—and he should warn such persons, if parents, that their children will probably inherit a tendency to myopia, which may be rendered harmless by proper management, or augmented till it acquires formidable proportions by improvident neglect. Such children should not be allowed to study too continuously, and should avoid much close looking at maps, work with the slate, written exercises, or the use of lexicons—since the position in which the eyes are then held favors congestion of their vessels, and otherwise tends to develop and increase the posterior staphyloma. Should this latter condition be discovered to exist during youth, in any considerable degree, it would be of the utmost importance to advise that a boy should not choose a profession requiring too much of his eyes, and that a girl should not devote herself to drawing or needlework.

Sympathetic Inflammation.—Another insidious source of loss of

vision is found in the sympathetic inflammation of one eye, arising in consequence of traumatic injury of the other.

We do not observe this affection after operations on one eye, nor, as a rule, after clean incised wounds, however inflicted; but where an eye has been roughly torn, or penetrated by a foreign body, and especially if the injury has implicated the ciliary muscle, or if a foreign body remains within the globe, there is great danger that sooner or later the other eye may be attacked by sympathetic inflammation. This is apparently induced through the medium of the optic nerve, and pathological changes begin insidiously, at the fundus of the globe, implicating the retina and choroid to a serious extent before any pain or injection of the eye calls attention to the fatal mischief which is beginning its ravages. Slight enfeebling of vision is found to have occurred, at an early period, if careful inquiry be made; but it is only at a comparatively advanced stage of the disease that injection of the vessels of the eyeball, and a turbid haziness of the surface of the iris and of the field of the pupil quite characteristic of this affection to a practised eye, attract notice, perhaps too late for efficient treatment.

An eye which has been roughly injured should therefore be carefully watched, and its fellow eye should at the same time be an object of solicitude. Should any continued irritation be kept up in the wounded eye, we should anxiously look out for any diminution of visual power, increased sluggishness in the movements of the pupil, or dulness of color or appearance of congestion in the iris of the other eye—as these may be important indications for treatment.

Once satisfied that morbid processes are being set up in the previously healthy eye, we must not rest content with palliative measures. Nothing less than the immediate removal of the injured globe can secure the safety of the other eye; for experience has amply shown that this, and only this, will arrest the treacherous symptoms which are endangering it. We need the less hesitate, as the wounded eye is almost invariably, in these cases, hopelessly lost; and as the operation is itself only a trivial one, involving no danger and only a day or two of confinement.

The globe may be readily excised by dividing its muscles near their anterior insertion and cutting the optic nerve close behind the eye. The socket is then to be filled with a piece of sponge for twenty-four hours; which is sufficient, without ligature of any vessels, to control the hæmorrhage. Wet compresses are the only dressing needed. The patient is at once relieved, not only of the fearful danger of blindness, but of the wearisome pain often continuously present in and around the injured organ.

Excision of a part or the whole of an injured eye may be resorted to, in cases where it continues for a long time in an irritable state, to relieve the discomfort arising from the deep-seated pain—even

though no suspicious symptoms should be observed in the other eye; as the patient is often willing to make a sacrifice of his appearance for the sake of relief and security.

But ablation of every eye which has received severe injury should by no means be made, in hasty trepidation lest possible ill consequences might arise from its preservation. Many a wounded eye, many an eye even, in which a bit of percussion cap or other foreign body has buried itself, does perfectly well, and the intruding substance is in due time eliminated, after a sojourn of from a few weeks to many years, without causing any symptoms which need give rise to anxiety.

While, therefore, such an eye is the seat of only a moderate amount of pain and irritability, it may be alleviated by treatment, and closely watched, whilst more radical measures are deferred;—for an eyeball is worth preserving, even though it may be disfigured and shrunk, since it gives a better support to the lids or to an artificial eye than the empty orbit.

Glaucoma.—One further instance will be cited, in which active conservative measures may be infinitely useful if employed in season. Glaucoma, especially in its acute form, is too often mistaken for circum-orbital neuralgia, and allowed to run its course for weeks or months unchecked, with no other interference than attempts to palliate the pain. But knowing as we do that this disease, though thus making itself felt chiefly in the branches of the fifth pair, in the neighborhood of the eye, really has its origin within the globe, and consists essentially in an increased ocular tension, resulting, if not alleviated, in inevitable loss of vision, but which may be relieved and the patient's failing sight restored in a few seconds by a simple operation, we cannot estimate too highly the importance of such an early diagnosis as will admit of the prompt application of the surgical, and the only known, remedy, which, to be successful, must not be too long delayed.

Glaucoma is believed to begin by a morbid irritability of the ciliary nerves which preside over the secretion of the vitreous humor. The quantity of the latter is thus increased, and its augmented bulk crowds the lens forward against the iris on the one hand, and on the other presses backwards upon the retina and optic nerve, lessening or abolishing their perceptive power, and causing a cup-like depression where the nerve enters the globe, its tissue being more yielding than that of the surrounding sclerotica.

At first this cupped appearance may generally be seen by the aid of the ophthalmoscope; but if the symptoms continue, there is often so much cloudiness of the vitreous, and, at a later period, of the lens, that the fundus of the eye can no longer be explored.

The globe is much increased in hardness, frequently giving a sensation, when pressed upon through the eyelid, as if a marble were under the finger. Complete disorganization of the internal tissues

may at last result, the iris and other structures becoming atrophied and the lens opaque.

Among the early symptoms are, an increased presbyopia, requiring the use of stronger convex glasses than would be indicated by the age or previous hypermetropia of the individual; paroxysms of partial blindness, followed by more or less complete remissions; an appearance as if all objects were covered with a white sheet; and, at night, perception of prismatic colors on looking at a light. Should these be complained of, especially if the patient be a female who has passed the critical period of life, and whose nervous system has lately been subjected to depressing influences from grief or anxiety, there would be strong reason to suspect glaucoma. If increased in severity, and particularly if the ophthalmoscopic appearances corroborate the other evidences of abnormal intra-ocular distension, no delay is admissible before resorting to iridectomy.

Mere evacuation of the aqueous humor does not allay the symptoms, as it has little effect on the posterior portion of the globe; but if a segment of iris be removed, quite to its outer margin, the morbid tension and irritability of the ciliary nerves seems to be relieved and the process of hypersecretion is put an end to.

The portion of iris excised should be at its upper part, that the lid may hide the deformity and obviate the annoyance experienced from the entrance of too strong a flood of light into the eye.

Relief from pain and great improvement in vision often immediately ensue; but in most instances, the full benefit of the operation is only obtained after an interval of at least some weeks, during which time the retina and other internal parts slowly recover from the effects of the compression they had undergone. It is frequently the case that the patient subsequently requires strong convex glasses, both for near and distant objects, the accommodative power having seemingly been impaired during the course of the pathological phenomena.

Perhaps surgical art never accomplished a more brilliant achievement than in the application of iridectomy to the relief of glaucoma; where, in some instances, as in a case occurring in the practice of a late President of this Society, the patient could not discern light before the operation, but on the following day could see every feature in her physician's face. But the measures of prevention which have been recommended in speaking of other affections, though less obvious in their results, are by no means of less importance; since we do a patient far greater service, however little he may appreciate it, in averting serious disease which threatens him than in arresting it after it has become established.

Bibliographical Notices.

A Manual of the Principles of Surgery, based on Pathology; for Students.
By WILLIAM CANIFF, M.R.C.S. Eng., M.D. of the University of New York; late Professor of Principles and Practice of Surgery, Univ. Victoria College, Toronto, C. W., &c. Philadelphia: Lindsay & Blakiston. 1866. Pp. 402.

THE author disarms criticism by stating in the preface to his work, that "this is the first undertaking of the kind in our young country. The writer enjoyed not the advantages of early literary training," &c. And again: "Not having personally superintended the work through the press, there may be found a few blemishes which the proof-reader could not feel at liberty to remove."

Of the four hundred pages contained in this volume, about one hundred and fifty are devoted to Inflammation, that *questio vexata* of all authors; fifteen to Healing, and eighteen to Morbid Growths. The other, and larger half, is given up to Wounds, and to Diseases and Injuries of Bones, Joints and Vessels. Nor is even this half devoted entirely to the Principles of Surgery. Diagnosis, Prognosis and Treatment follow close upon Pathology and Principles, on every page, so that it resembles, somewhat, Drutt's Vade Mecum, without the condensation of the latter.

If, therefore, the author compiled this volume as a manual of principles for the student, without embracing the practice of surgery, he has certainly failed, and has made his book too large by one half. But if to quote, condense, and compile the writings of others, to embody all that is good in them in his own work, with the stamp of his approval, and the reservation that many of the measures recommended by them were used independently by himself, before he saw their treatises, be to make a manual of the Principles and Practice of Surgery, then Dr. Caniff has succeeded in his task.

Although he very candidly acknowledges his obligations to various authors, we think we do not err in saying, that his treatise is founded about equally on Paget's Surgical Pathology, Hilton on Pain and Rest, and Hamilton on Fractures. These are the works of masters in surgery; no more judicious selection of authorities could be made. But the conclusion will obtrude itself, that however valuable a compilation might formerly have been to the student, as both shorter and less costly than the authors quoted, it is not of equal value now, when books can be published cheaper in England than in America. And were we students again, we should certainly prefer Paget or Hilton by themselves, to any digest of them which might be undertaken for our benefit. Particularly would this hold true with regard to the illustrations. The original plates of Mr. Paget have not gained anything by the transfer to an American edition, and they are, also, very scanty in number.

We notice, on page 168, that our author still believes in the efficacy of a solution of nitrate of silver to check the spread of erysipelas. And in the article on Frostbite, no notice is taken of recent experiments in Europe, which go to show that congelation destroys and extravasates the blood corpuscles, thus explaining why perfect resto-

ration of circulation cannot take place after a certain degree and continuance of cold.

In speaking of Gun-shot Wounds, he is perhaps too strong in his condemnation of exploration with the finger rather than the probe. The advantage of a tactile surface to estimate the condition of a deep wound can be got by the finger alone, and this advantage is inestimable. Stress enough, to our thinking, is not laid upon the *débridement* of punctured and lacerated wounds—a practice now honored in the breach rather than in the observance; yet, we believe, embodying one of the soundest maxims of surgery.

In his article on Dissecting Wounds, the author gives a very good explanation why certain bodies may be more poisonous soon after death, when they have died of erysipelatous or zymotic diseases, than at a later period, when the poison may be that of decomposition alone.

On the whole, Dr. Caniff's work is conservative, safe and useful. He inclines to simple and mild means first; heroic ones, last. Therein he faithfully follows the best teachings of the English and American schools.

Although containing, and claiming to contain, little new or original, it yet is a sound book in principle and practice to guide the student or the young practitioner. *

Reflex Paralysis; its Pathological Anatomy and relation to the Sympathetic Nervous System. By M. GONZALEZ ECHEVERRIA, M.D. (Univ. of Paris), Physician to the Charity Hospital, New York, formerly Assistant Physician to the National Hospital for the Paralyzed and Epileptic, of London, &c. &c. New York: Baillière Brothers, 520 Broadway. 1866.

In scientific inquiry there has always been exhibited a tendency to apply to groups of obscure phenomena terms which, while they appear to offer an explanation, really only indicates that research has reached its limit. Such terms are shock, sympathy and paralysis. Many symptoms classed under the first two heads, but a short time since, are now explained by the accurate research of the present day, and no man with any pretence to scientific culture would think of using the word paralysis as final in diagnosis, until he had sought most diligently for its cause. But there still remain a large number of cases of paralysis to which the term "reflex" has been applied, and, as far as we can understand, most properly, as they appear to depend upon peripheral irritation which, reflected through the nervous centres, diminishes or destroys the power of the nerves originating therein.

It happens, unfortunately, that the examinations of the brain and spinal cord, upon which the theory was based, were made with the unaided eye alone, and, no lesion being perceptible, none was supposed to exist. The use of the microscope in this, as in other branches of medicine, has shown, however, that there are changes which cannot be otherwise perceived, and the general term reflex must now yield at least a portion of these cases, which it formerly embraced. The author's position is best stated by himself in the following words:—

"The general term *reflex* used here comprises that peculiar and ex-

tensive class of paralyzes called functional, idiopathic, asthenic and peripheral. It may be proper to state from the beginning that this name does not imply contraction in the bloodvessels of the spinal cord as a necessary initial cause of the paralysis, nor subsequent absence of structural change in the nervous system as its effect. I keep the word because there is no advantage in coining a new one, when that already created suffices, provided we define its meaning, to guard against looseness of application. Indeed, there should be no objection to call such form of paralysis *reflex*, for several of its varieties attending fever, pneumonia, anæmia, intoxication, &c., could not properly be looked upon as *peripheral* in the true sense of this expression, while to name them *functional* is obviously in opposition to our knowledge that material modification in the organs is essential to disease."

After so generous a definition, covering every obscure case to which no specific lesion can be assigned, we are well prepared for the enumeration of causes as indefinite and general as the definition. They are the following :—

1. Exhaustion of central nervous incitability.
2. General affections and a contaminated state of the blood.
3. Disturbed nutrition by conditions other than the above.
4. Circumfusa; cold, wet, and other atmospheric influences, although these latter more properly belong to those causes acting on the blood.
5. Lesion of the peripheral nervous system.

We do not understand that reflex paralysis originates in the nervous centres, under any circumstances, and unless the exhaustion mentioned followed some external influence it should not be introduced in this connection, and even then not under the head of causes.

With regard to the affections mentioned under the second and third heads, they are too general to be understood sufficiently for criticism.

Circumfusa are shown by many cases to be most powerful in producing the peculiar train of symptoms called reflex, but we should like some proof that they do so by acting on the blood. If physiologists have determined this point by experiments a great step has been gained; but if so, we think that the domain of reflex paralysis is in great danger of being materially circumscribed, as all parts may be directly affected by the circulating blood.

The last cause assigned is the only one so distinctly stated as to be completely understood. This may act in two different ways: either "peripheral morbid influences may travel through a nerve and injure the spinal cord and brain," as is shown by the action of woorara and strychnia on the motory and sensory nerves; or "a peripheral lesion may travel backward through the trunk of a nerve to affect the spinal cord or brain."

The first of these may with propriety be still called reflex; the other is merely an extension of disease from one point to another. The cases of this affection cited are exceedingly interesting, and prove the truth of the author's statement that "there remains an unexplored field of interesting research on the morbid changes undergone by the peripheral nerve fibres and cells."

But the principal aim of the treatise is to show that marked lesions of the nervous centres are found in cases formerly classed under the

head of reflex paralysis, and in which no perceptible change could be detected. The details are of the most positive character, such as the photograph alone can give, and must therefore remain as valuable contributions to pathological anatomy, and form a part of a series of exact observations, through which much of the obscurity overhanging the diseases of the nervous system will be finally dispelled.

In connection with the three original cases of the author, others are reported by foreign writers, all of which confirm the belief that microscopic changes frequently exist where to the naked eye the parts appear healthy. The only objection we can make is, that if our ideas of reflex paralysis be correct, some of these cases cannot be classed under that head.

The second chapter contains much interesting matter concerning the agency of the sympathetic system in the production of reflex paralysis; also interesting facts illustrating the hyperæsthesia: changes in the muscles; and the condition of the urine in this disease. Though many points still require elucidation, the treatise contains much which it is important for physicians to understand. **

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.
BY EDWARD JARVIS, M.D., SECRETARY.

A STATED quarterly meeting of the Norfolk District Medical Society was held at City Hall, Roxbury, July 11th, 1866, at 11, A.M. The President, Dr. Cotting, in the chair. The records of the last meeting were read. It appearing that the election of Dr. J. G. S. Hitchcock, of Foxboro', as orator for the next annual meeting, by accident had not been recorded, the election was unanimously confirmed, and ordered to be put on record. The records were then accepted.

Dr. Allen, of Roxbury, Coroner for Norfolk County, read an instructive paper on "The Duties and Liabilities of Coroners, and Medical Witnesses."

The President asked whether the "family physician" of an accused, or of a murdered man, when summoned by a coroner, can be called upon to testify against his consent as an *expert*, touching the previous medical history of the patient, or on other general matters involving medical opinions. Dr. Allen thought not; but a coroner can bind him over to appear as an expert in a superior court. A discussion followed: and Dr. Allen was requested to embody answers to some of the points raised, in a future paper, which he promised.

Dr. Burgess, of Dedham, read a review of the "Year Book," published by the "New Sydenham Society." He cited many useful advances made during the year as therein recorded, but concluded that the book was too diffuse, its articles poorly digested, and on the whole unworthy of the reputation of that Society.

Dr. Fifield, of Harrison Square, read a valuable paper on "Tubercular Meningitis in Adults"; and showed that this disease, so common in children, is much more frequent in adults than generally supposed. Dr. Fifield also argued, from the cases he cited, "the futility

of attempting to recognize, by any particular fixed symptoms, any particular fixed lesion of the membranes of the brain."

The President suggested that each member of the Society report henceforth any such cases which may occur in his practice, as the subject had lately acquired great interest in the profession.

Dr. Maynard, of Dedham, read a practical paper on Collodion, the preparation of which he improved upon, and was the first to employ for medical and surgical purposes some twenty years ago.

Drs. Bacon of Sharon, Streeter of Roxbury, Gifford of East Stoughton, Tower of South Weymouth, and others, cited instances of its usefulness in cases under their observation.

Dr. Fifield thought, from experiments on himself, that it would check erysipelas in its *incipient* stages.

Dr. Blanchard, of Neponset, knew individuals on whom its use prevented troublesome sunburn of the face under exposure greater than that which previously had invariably produced much suffering.

Dr. Robinson, of Roxbury, read a paper on "Erysipelas; other cases illustrating its Natural History," written by Dr. Francis, of Brookline, who was unavoidably detained from the meeting.

Dr. E. Stone, of Walpole, read a case of complete suppression of urine, for five or more days, with subsequent return of the secretion in part, for a time.

Dr. Bartlett, of Roxbury, related a similar case, continuing more than two weeks.

The catheter was passed daily in both these cases. There was no urine secreted. Both cases ultimately proved fatal. Autopsies were not allowed.

Dr. Stone also reported the case of his son, Dr. S. E. Stone, now recovering, as all hope, from an immense psoas or abdominal abscess.

The Secretary asked for information respecting deaths, removals, &c., of members, in order to print a new catalogue. Since last catalogue, seven years ago, eleven had died, twelve left the County, and there had been several removals within the District. Twenty-two had joined the Society in the same time.

Dr. J. H. Winkler, of Jamaica Plain, late of Savannah, Geo., a graduate of New York Medical College, having been examined by the Censors, was admitted a member, signed the By-laws, and was introduced to the Society by the President.

After very full and interesting session, the Society adjourned at 2, P.M., and passed the remainder of the afternoon in social reunion at the house of the President, where a collation was provided for them.

M. CORLIEU has determined a differential characteristic of idiopathic albuminuria and that caused by an alteration of the kidneys. It is the odor of the urine. In the nervous idiopathic affection asparagus communicates to it the peculiar odor which every one knows. When, on the other hand, there is any change in the structure of the kidneys, as in nephritis, no such odor is communicated. Turpentine and cubeb serve equally well as a diagnostic mark in such cases, according to M. Corlieu.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, JULY 26, 1866.

REGISTRATION REPORT OF MASSACHUSETTS.

THE Twenty-third Annual Report, for the year 1864, relating to the Births, Marriages and Deaths in the Commonwealth, has been published, and forms one of the most important State documents. Its preparation has been entrusted, as in previous years, to Dr. Augustus A. Gould, whose deductions and editorial remarks will be found of great interest and value. Such figures and statistics are dry matter, but when correctly collected and judiciously arranged, they furnish results which cannot be too highly estimated in our study of life and death. They dissipate many an ill-founded popular prejudice as well as false theory in science, and the labors of those who thus digest and utilize the results of our observations should be appreciated at their proper value.

A glance at the grand totals of the returns shows that the population of our State is nearly at a standstill, and that the ratio of deaths has increased in a startling manner. Thus there were 30,449 children born alive during the year, and the number of deaths was 28,723. The number of marriages was 12,513. Comparing these numbers with those of the previous year, there is an increase of only 135 births, while the number of deaths has increased by 972. Compared with those of 1860, the number of births is 5,602 less, marriages 109 more, and 5,655 more deaths. The natural increase of the population was in that year 12,983, but now it is only 1726, although the increase of inhabitants is estimated at 30,000. These extraordinary fluctuations may be seen by the following table :—

“ Number of Births, Marriages and Deaths registered in Massachusetts, in each of the years 1857 to 1864, inclusive.

YEARS.	Births.	Marriages.	Deaths.	Excess of Births over Deaths.	Births to 100 Persons.	Deaths to 100 Persons.	Excess of Births in 100 Persons.
1857,	35,320	11,739	21,280	14,040	3·01	1·82	1·19
1858,	34,491	10,527	20,776	13,715	2·89	1·74	1·15
1859,	35,422	11,475	20,976	14,446	2·92	1·73	1·19
1860,	36,051	12,404	23,068	13,983	2·93	1·87	1·06
1861,	35,445	10,972	24,085	11,360	2·86	1·96	·90
1862,	32,275	11,014	22,974	9,301	2·62	1·86	·76
1863,	30,314	10,873	27,751	2,563	2·42	2·22	·20
1864,	30,449	12,513	28,723	1,726	2·42	2·28	·14

“ Thus we have a variation, from 1857 to 1864, from 3·01, in one hundred living, to 2·42 in the births; the marriages have fluctuated from 1·07 to 2·00 in one hundred; the deaths from 1·73 to 2·28; and the difference between the births and deaths, or the natural increase, has gone down from 1·19 to ·14 in one hundred persons living.”

The population of the State, according to the last census, is 1,267,329, or only 36,263 more than our population in 1860, where-

as the gain in the previous five years was 98,687. This diminution is in some measure due to our losses in war and tells a sad story of the cost of that struggle, but other causes must have coöperated which deserve the careful study of our political economists. In six counties, even according to the estimate of the Report, there has been a positive decrease of 9,043 during the last five years. These counties are situated on the coast, and absence in the naval service explains to some extent, in Dr. Gould's opinion, this deficit.

The number of births, as above stated, was 30,449, not including stillborn, of which 15,634 were males, and 14,745 were females. Number of stillborn 856; males 503, females 290. The average decrease compared with 1860 has been 15.65 per cent, ranging from 10.48 in Barnstable to 24.59 in Franklin county. The percentage of decrease in Suffolk has been 12.45. In one county only, Hampden, was there a small increase—2.05 per cent. The season of birth shows, as usual, that procreation is more active in the cold months of the year. The parentage was American in 13,453 cases, foreign in 14,266. a preponderance somewhat less than in previous years, which may be explained by the diminution of immigration during the last few years. There were 297 plural births, of which three were triplets. In the last nine years there has been one case of twins to 104 births, and one triplet case to 11,268 births. The number of illegitimate children returned was 285, or one in 107 births, which, of course, falls far short of the actual number.

The number of marriages, 12,513, considerably exceeded that of any year since 1860, when there were 12,404. In 1863 the number was only 10,873, an increase of 1,640 in one year. The marriage rate in the cities has been one in 65 inhabitants, while in some of the country districts it was as low as one in 121. The average age of all the men married was 28 years and 9 months, and of the women 26 years and 3 months. The widowers who married numbered 2,207, widows 1,520, and the chance of a widow's getting another husband is estimated as about two in three. One female married at 13, 3 at 14, 51 at 15, 113 at 16, and 25 at 17.

The number of deaths for 1864 was 28,723 against 23,596 as the average number for the preceding five years. The comparative mortality of the various districts of the State is illustrated in the following table:

DIVISIONS AND COUNTIES.	Population, 1860.	Deaths to 100 persons living.		
		1864.	1863.	1853-62.
Metropolitan, - - - -	177,840	2-967	2-642	2-398
North-Eastern, - - - -	369,352	2-389	2-150	1-742
South-Eastern, - - - -	314,999	2-160	2-089	1-674
Midland, - - - - -	187,132	2-039	2-267	1-717
Valley, - - - - -	126,623	2-506	2-528	1-776
Western, - - - - -	55,120	1-916	2-083	1-482

The number of males deceased was 14,964; of females, 13,698. In the first year of life 123 males died to 100 females, and about 116 to 100 under five years; while between the ages of twenty and thirty only 91 males die to 100 females. 18.9 per cent. of all deaths took

place in children under one year, and 37.05 per cent. among those under five.

"Dr. Edward Jarvis, of Dorchester, has recently made a curious investigation with a view of comparing the mortality of the American and foreign population in Boston and vicinity, in respect to their ages at death. For this purpose he analyzed the registers of burials at Mount Auburn, where the better class of Americans are buried, and those of the Catholic cemeteries at Charlestown, North Cambridge, and Dorchester, where those buried are mostly of foreign origin. The numbers are the ratios in 10,000 deaths. To his figures the percentages for each period are here added.

AGE.	MOUNT AUBURN.		CATHOLIC CEMETERIES.	
	Number.	Percentage.	Number.	Percentage.
Under 1 - - - - -	1,163	28.79	2,877	71.21
" 5 - - - - -	2,796	32.41	5,830	67.59
" 10 - - - - -	3,332	35.56	6,319	64.44
" 20 - - - - -	3,979	37.22	6,713	62.78
20 to 40 - - - - -	2,365	56.42	1,827	43.58
40 to 60 - - - - -	1,591	62.00	975	38.00
60 to 80 - - - - -	417	63.95	252	36.05
80 and over - - - - -	101	100.00	-	-

The rate of mortality in the different counties is as follows:—
 "Dukes, 1.64; Berkshire, 1.91; Barnstable and Nantucket, 2.00; Bristol, 2.12; Franklin, 2.15; Middlesex, 2.20; Norfolk, 2.26; Plymouth, 2.28 (these are below the average for the State, 2.33); Worcester, 2.37; Hampden, 2.58; Hampshire, 2.68; Suffolk, 2.81."

The causes of death are considered at some length by Dr. Gould, and very important conclusions are drawn from the tables with regard to the prevalence of some of the most important diseases. We regret that we have space only for a portion of his introductory remarks, and for a list of the causes.

"There seems to have been no destructive epidemic during this year; and although the number of deaths has been much increased, they seem to have been due to a general sanitary condition acting on all causes of death, rather than to the spread of any one disease. Zymotic diseases indeed, on the prevalence of some one of which the health of a season usually depends, have fallen off three per cent. from the preceding year; though they were not down to the average for twenty-three years. Constitutional diseases were slightly less, and much less than the average for many preceding years. Local diseases were slightly increased, though about the same as for preceding years; and so also with Developmental diseases, in which there has, however, been a gradual decrease for several years. Violent deaths bear a much larger proportion than ever before, 2.20 per cent. of all deaths; while the average for twenty-three years was only .29 of one per cent., owing of course to the large number (634) reported 'killed in battle.'

"Smallpox, measles and scarlatina were more prevalent than usual, while diphtheria, croup and whooping cough were less so. The percentage of deaths from phthisis has gone on diminishing for five years, and has gone down from 19.34 per cent. of all deaths to 16.40 per

cent., the average for twenty-three years being 20·77 per cent. The most lamentable cause of mortality, more so than even the casualties of battle, is death from 'privation'; from this cause 116 deaths are recorded—all of them from treatment in rebel prisons. Diseases of the brain and nervous system were considerably increased, while those of the organs of circulation were diminished.

"It is not a little surprising to see the constancy with which the principal diseases, indeed all diseases, succeed each other in the order of fatality. Consumption always heads the list, and numbers more victims than any other three diseases. Pneumonia stands second or third. The miasmatic diseases which follow, vary somewhat in place from year to year, according as one or the other is epidemic."

The causes alphabetically arranged, are as follows:—Abortion, 2; abscess, 56; abscess, lumbar, 3; anæmia, 82; aneurism, 7; angina pectoris, 3; apoplexy, 321; ascites, 22; asthma, 53; bowels, disease of, 26; brain, disease of, 281; brain, softening of, 46; bronchitis, 194; burns and scalds, 137; carbuncle, 3; casualty, 303; cancer, 330; cephalitis, 728; childbirth, 163; cholera, 95; cholera infantum, 1198; chorea, 1; cold water, 1; consumption, 4733; convulsions, 453; croup, 768; cyanosis, 26; cystitis, 7; debility, 113; delirium tremens, 49; diabetes, 31; diarrhœa, 589; diphtheria, 1231; dropsy, 502; drowned, 179; dysentery, 1186; dyspepsia, 20; enteritis, 271; epilepsy, 61; epistaxis, 3; erysipelas, 186; exposure, 6; fever, intermittent, 9; do. remittent, 39; do. typhus, 1344; fistula, 1; fits, 105; fracture, 51; frozen, 2; gastritis, 77; gout, 3; gravel, 15; heart disease, 768; heat, 15; hæmorrhage, 69; hepatitis, 45; hernia, 25; hip disease, 15; homicide, 9; hydrocephalus, 446; hydrophobia, 1; hydrothorax, 39; ileus, 63; infantile, 1293; inflammation, 31; influenza, 29; insanity, 64; intemperance, 93; intussusception, 2; ischuria, 3; jaundice, 26; joint disease, 8; kidney disease, 81; killed in battle, 634; laryngitis, 14; liver disease, 150; lost at sea, 104; lungs, disease of, 61; malformation, 25; malignant pustule, 2; measles, 320; metria (puerperal fever), 42; metritis, 5; mortification, 36; murder, 1; necrosis, 2; nephria, 13; nephritis, 36; neuralgia, 13; noma (canker), 93; old age, 1421; ovarian dropsy, 22; paralysis, 473; paramenia, 4; pericarditis, 11; peritonitis, 54; phlebitis, 3; pleurisy, 104; pneumonia, 1801; poisoned, 26; prostate, disease of, 11; purpura and scurvy, 27; quinsy, 43; railroad accident, 90; rheumatism, 98; scarlatina, 1503; scrofula, 151; skin disease, 14; small-pox, 242; spina bifida, 3; spine disease, 73; starvation, 105; stomach disease, 41; strangulation, 6; stricture of urethra, 1; suddenly, 28; suffocation, 24; suicide, 65; surgical operation, 9; syphilis, 37; tabes mesenterica, 273; teething, 251; tetanus, 11; thrush, 4; tumor, 55; ulcers, 10; ulcer, intestinal, 13; unknown, 546; uterus, disease of, 18; whooping cough, 235; worms, 26.

The interesting paper on the effect of intemperance on mortality, by Dr. Jarvis, which appeared in the JOURNAL, finds a place properly in the Report. There is also a valuable chapter on War Statistics, with tables illustrating the percentage of deaths by disease, battle and starvation of Massachusetts soldiers, and many other details of interest, which we must leave unnoticed.

It is greatly to be regretted that so valuable a collection of medical statistics cannot be more widely distributed among the profession.

The Boston Medical Register, for the year commencing June 1, 1866, is just issued under the editorship of Charles H. S. Davis, M.D., in a neat and convenient form, and will without doubt be favorably received by the profession of this city. It has been prepared with care, and for a first attempt contains but few mistakes. A few omissions, a few additions, and some little change in the arrangement will make it all that is desired another year. It contains a monthly calendar, with the days of meetings of the various medical societies in the city throughout the year, the Code of Ethics of the American Medical Association, a list of officers of the Massachusetts Medical Society, the Suffolk District Medical Society, officers and members of the Boston Medical Association, of the Society for Medical Improvement, Society for Medical Observation, Obstetrical Society, Boylston Medical Society and the Massachusetts Medical Benevolent Society; a history of the foundation of the Medical Department of Harvard University, with a list of instructors and graduates of the present year; a notice of the New England Female Medical College; a list of the medical board of the following hospitals and institutions:—Massachusetts General Hospital, City Hospital, Massachusetts Charitable Eye and Ear Infirmary, McLean Asylum, Boston Lunatic Hospital, Carney Hospital, Boston Charitable Orthopedic Association, New England Hospital for Women and Children, Rainsford Island Hospital, Home for Orphan and Destitute Children, Boston Female Orphan Asylum, St. Vincent Orphan Asylum, Blind Asylum, Houses of Industry and Reformation, Home for Aged and Indigent Females, Home for Aged Colored Women, Home for Aged Men, Temporary Home for Destitute, Massachusetts School for Idiots, Home of the Good Samaritan, Home for Incurable Consumptives, Soldiers' Home, Ladies' Health Society, Boston Mutual Benefit Association, Boston Benefit Society, and Boston Dispensary; also an account of the recent sanitary inspection, of the Warren Museum of Natural History, Warren Anatomical Museum, Boston Society of Natural History; a list of the medical examiners of the life insurance companies, of the officers of the American Pharmaceutical Association, of the Massachusetts College of Pharmacy, the District Medical Societies of the State and of the American Ophthalmological Society. A brief historical account of the early practitioners of medicine in the State follows. A list is given of the medical staff in the war commissioned from Boston, and of those who received a brevet promotion. Fourteen pages are devoted to medical necrology. Last is placed a list of names, location and office hours of all qualified physicians in the city, and of collectors, makers of surgical instruments, and nurses.

A glance at the above table of contents will show how much information of daily importance to every member of the profession is brought together in this convenient little book, and we trust the editor will meet with the full success the undertaking deserves.

Cholera in Boston.—It will be seen by the accompanying letter of the City Physician to the Board of Health, that a case of cholera has occurred in this city, brought hither from New York, where it seems to be spreading in such a manner that a general outbreak is to be feared. Another fatal case is reported in Roxbury, in a person recent-

ly arrived from New York. In the meantime our city government are waiting, waiting for others to decide for them a matter which they should have settled months ago by the ample authority they possess as a board of health. Upon them alone rests the terrible responsibility of preserving in our midst such an invitation to the approach of pestilence. The late heat has carried up the mortality in one week from 90 to 129, and increased the number of deaths by cholera infantum from 6 to 38. The number of deaths in New York city was more than 1000 in three days of last week.

"GENTLEMEN,—I this afternoon received notice, through the Deputy-chief of Police, that Calvin G. Farnham, a soldier on furlough from Hart's Island, New York Harbor, had been seized with cholera on his route hither, and was lying sick at the Soldier's Rest, No. 81 Summer Street. I immediately proceeded to that place, and found him suffering with symptoms which left no doubt in my mind as to the truth of the information. He was taken sick on board the boat, and on his arrival in this city went to No. 11 Chickering Place, where he remained until his removal to the place where he died, about 9, P.M., less than twenty-four hours from the beginning of the attack. I have caused the bedding, personal clothing, and other articles which were soiled by the discharges, and which could not be disinfected without risk to others, to be burned, and trust that with these precautions, no further spread of the disease will follow.

"This instance shows how impossible it may be, with all the care that may be exercised, to protect the city from the admission of this disease by means of emigrants arriving from infected ports, to guard against an attack in the rear; and should prompt the authorities in localities where the disease prevails, as by the report of Farnham it has on Hart's Island, to exercise the greatest caution in permitting those who may be suffering from the premonitory symptoms to go out into the community, where as yet the disease has not gained a foothold. Respectfully submitted, WILLIAM READ, M.D.,
July 20th, 1866. City Physician."

Messrs. Editors:—

"Quia est in eo
Virtus dormitiva."

"The Position of the Fœtus." As throughout all nature it is the general law that the fœtus lies in its mother in a position completely opposite to that of the parent, head opposite to head, feet opposite to feet, back opposite to back, abdomen opposite to abdomen, &c., and any deviation from this the exception; what need is there of twenty-two *learned* reasons for the "causes of the position"? In reading over the article alluded to, and quoted in the last number of the JOURNAL, one cannot help reflecting how nearly science sometimes approaches the burlesque, nor wholly repress a sympathy with the worthy Præses in the play in his great admiration

"Qualis bona inventio
Est medici professio!"

* * *

Editorial Notices of Advertisements.—Many advertisers, whose claims are justly entitled to support and confidence, have frequently applied

for editorial notices in their behalf. These applicants are informed that it is against the rules adopted, in the business management of this Journal, to comply with their requests. As is manifest, it would be unjust to others to give increased publicity to one advertisement. The entire policy of editorially directing the attention of the public to advertisements is believed to be injudicious and unjust, and when this is done for a pecuniary consideration, as is often the case, the transaction becomes morally, if not legally, criminal and offensive.—*Richmond Medical Journal*.

Urea a normal Constituent of Cow's Milk.—M. Lefort announces (*Jour. de Pharm.*, March, 1866, p. 177) the existence of urea in the milk of healthy cows. From 10 litres (2½ gallons) of this milk he obtained 23 grains of nitrate of urea, easily characterized by its crystals and by its combination with binocide of mercury.—*Am. Jour. Phar.*

Trichiniasis in Iowa.—Dr. Asa Horr has published, in a recent number of the *Dubuque Herald*, an account of fifteen cases of this disease, five of which were fatal. It was caused by eating raw smoked ham made into sandwiches.

New Hampshire Asylum for the Insane.—From the Twenty-fourth Annual Report of the Superintendent of this Institution (Dr. J. P. Bancroft), we learn that the number of admissions for the year ending May 1, 1866, was 104—55 males and 49 females. Number in the asylum May 1, 1865, 223; removals of all kinds during the year, 91—leaving the number of inmates at the end of the year, 236. Of those discharged, 26 had recovered; 28 were improved; and 16 were not improved. This institution has recently been made the residuary legatee of the late Moody Kent, Esq., on condition of its paying annually to a relative of his, the sum of \$100. The legacy has been accepted upon the terms set forth, and the amount soon to be realized will not vary much from \$140,000. It is to constitute a permanent fund, and be hereafter known as the Kent Fund, the principal of which is to be kept forever unimpaired, and its income to be devoted to such purposes as the Trustees shall from time to time designate.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 21st, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	71	58	129
Ave. mortality of corresponding weeks for ten years, 1855—1865	45.8	42.5	88.3
Average corrected to increased population	00	00	97.13
Death of persons above 90	0	0	0

DEATHS IN BOSTON for the week ending Saturday noon, July 21st, 129. Males, 71—Females, 58. Accident, 3—stricture of the bowels, 1—congestion of the brain, 5—disease of the brain, 5—bronchitis, 1—cholera, 1—cholera infantum, 33—cholera morbus, 2—consumption, 17—convulsions, 4—diarrhoea, 6—drinking cold water, 1—dropsy, 5—dropsy of the brain, 1—drowned, 1—dysentery, 4—emphysema, 1—scarlet fever, 2—infantile disease, 4—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 6—old age, 1—paralysis, 1—peritonitis, 1—sunstroke, 7—unknown, 9.

Under 5 years of age, 65—between 5 and 20 years, 12—between 20 and 40 years, 28—between 40 and 60 years, 14—above 60 years, 10. Born in the United States, 92—Ireland, 31—other places, 6.

TWENTY-SEVEN WEEKLY NUMBERS—AUGUST, 1866, TO FEBR'Y, 1867.

THE
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THE POLICY OR IMPOLICY OF REMOVING LEUCOCYTHÆMIC,
GLANDULAR TUMORS.

[Read to the Massachusetts Medical Society, at the Annual Meeting held in Boston in May, 1866, and communicated for the Boston Medical and Surgical Journal.]

By DAVID W. CHEEVER, M.D., of Boston.

To approximate a decision as to the propriety or impropriety of removing leucocythæmic tumors, we must seek for data in the etiology of a disease whose pathology is, as yet, uncertain; and of which, clinically, there is little, and surgically nothing, known.

Within a few weeks of each other Bennett* and Virchow† announced to the world, in 1845, the discovery of a new blood-disease, which the former called leucocythæmia, the latter leukæmia and leucocytosis. Their views as to its pathology were almost identical; but as to its causation, somewhat different.

Leucocythæmia, or white-cell blood, may be defined to be an excess of white corpuscles over the red, in the blood. Or, that a change in their relative proportion, which is normal in certain stages of digestion, becomes a constant morbid state. For whereas in health we may see half a dozen white corpuscles in the field of the microscope, in this disease we may see fifty; and the proportion of white to red becomes changed from one in many hundreds to one in one or two hundred, or even more. Coincident with these changes in the blood-corpuscles, and, as our authors think, causative of them, there are enlargement of the spleen and of the lymphatic glands; which, acting and reacting on each other, lead to so permanent an impoverishment of the blood, as to give rise to positive disease—to dropsies, hæmorrhages, and death.‡

It seems to be pretty well proved by observation, that the spleen exercises some important action on the blood. Gray, in his mono-

* Bennett's Clinical Medicine.

† Virchow's Cellular Pathology.

‡ All of the so-called ductless glands are classed by some as blood-making, or blood-restoring organs, and included in these morbid changes. They are, preëminently, the spleen, thymus, thyroid and lymphatic glands; and, perhaps, the supra-renal capsules, pineal and pituitary bodies. The liver, also, has been added by some physiologists.

graph,* speaks of it in two different capacities: first, as a reservoir which can dilate and accommodate an excess of blood; second, as changing the quality of the blood going through it. In the blood of the splenic veins and its lymphatic vessels the white corpuseles are found very abundant; thus for the same number of red globules, there were over thirty times as many white ones in the blood which left the spleen, as in that which arrived at it.

It is to this action of the spleen—exaggerated by its morbid enlargement—"numerical hypertrophy," as Virchow calls it, or a repetition and multiplication of its own elements, as we may translate the term, that the production of an excess of white corpuseles is mainly due.

This view of the white-cell-producing function of the spleen is sustained by the ascertained enlargement of this organ during digestion, when new cells are being added to the blood.

It is the opinion of Bennett that the chyle corpusele is changed into the white corpusele of the blood by a change in its investing membrane, which frees the nucleus; and that this change is effected in the spleen and lymphatic glands. In leucocythæmia, this change is not properly carried out; and we have a persistence of the cell membrane, even after entering the systemic circulation, or an excessive growth of imperfectly developed blood-cells.

Besides these two causes of leucocythæmia—the excessive production of white corpuseles by the morbid spleen, and the arrest of their transformation into red corpuseles—we have another source of vitiation in the blood in the lymphatic glands, which, when irritated and enlarged, throw large quantities of white cells into the circulating current by a desquamation of their own cells, just as the uriniferous tubes of the kidney desquamate their cells in albuminuria.

This enlargement of the lymphatic glands may exist apart from, and without, morbid enlargement of the spleen. Like the latter, the glandular hypertrophy is here also numerical, or a multiplication of the same elements. This is proved by a microscopic examination of the glandular tumors which have been removed, which shows them to be entirely made up of an increase of cells and connective tissue, identical with the glands.†

* On the Spleen, by Henry Gray.

† There is no essential difference in the views of Bennett and Virchow as to the origin and nature of leucocythæmia. Both believe that numerical hypertrophy of the spleen—or a multiplication of its cellular elements—is the principal cause of the increased number of white corpuseles. Both agree, also, that the same kind of hypertrophy of the lymphatic glands is also a cause of a leukæmic condition of the blood.

Bennett makes no distinction between the different varieties of leucocythæmia, but considers them all essentially the same. Virchow divides the disease into two kinds, the splenic and the lymphatic, according to the organs affected. To quote his own words ("Cellular Pathology," p. 204):—"I have therefore distinguished two forms of leukæmia, namely, the *ordinary splenic* and the *lymphatic form*, which are certainly not unfrequently combined. The distinction rests not only upon the circumstance, that in the one case the spleen, in the other the lymphatic glands, constitute the starting point of the disease, but also upon the fact that the characteristic morphological elements which are found in the blood are not precisely similar. Whilst in the splenic form these elements are comparatively large and

Having, then, two causes of leucocythæmia—hypertrophy of the spleen and hypertrophy of the lymphatic glands, which, according to Virchow, do not always coëxist—by remedying either one of these can we affect the diathesis? If chalybeates and a general tonic course exhaust the resources of medicine in this disease, can surgery do anything? If it can, it is obvious that the glands alone can be attacked, as the spleen is inaccessible; and, as it happens that the glands of the neck are the most prone to enlarge into coherent, clustering tumors in leucocythæmia, they offer themselves especially to the surgeon for removal.

It was in answer to the above questions that the expediency of an operation offered itself to my own mind, as it probably has to other surgeons.

CASE I.—[Treated at the Central Office of the Boston Dispensary. March, 1863. Service of Dr. Cheever.]

John S., eight years of age; a slight, puny lad, with an anæmic look. One year since, an enlargement of the cervical lymphatics began on the left side of the neck. The blood now contains from ten to fifty times as many white corpuscles as are found in health. There is no pain, but the tumor has doubled in size within the last two months. It now begins to occasion headache and dyspnœa, from pressure on the veins and trachea. The tumor is about as large as two closed fists. It shows no signs of softening. It is lobulated, and extends from near the middle line of the neck in front back upon the trapezius, and from the lobe of the ear down to and beneath the clavicle.

March 31st.—The operation was begun by carrying an incision from just below the ear to the cricoid cartilage, disclosing a hard, glandular mass lying behind and beneath the sterno-mastoid muscle. It was very adherent, and had to be slowly dissected out, yielding to the edge of the knife only. It was found necessary to divide the sterno-mastoid, and dissect aside the external jugular. The lower edge of the tumor extended into and below the subclavian triangle, and its base rested on the carotid sheath.

Under the microscope, the tumor presented the exact cellular structure which is figured in "*Virchow's Pathology*" (page 208, American Edition) as typical of lymphatic glands. No other cellular elements were discovered in it, except connective tissue.

The child's health improved very materially after the operation. The blood showed fewer white corpuscles, although they were not reduced to the normal standard. Eight months after removal the tumor began to return, near the clavicle of the same side, but below its original site. Two years after the operation it had attained a

perfectly developed cells, with one or more nuclei, and in many cases bear a great resemblance to the cells of the spleen; we notice in the lymphatic forms that the cells are small, the nuclei large in proportion and single, sharply defined and granular, while the cell-wall is in close apposition to them, so that it looks, in many instances, as if perfectly free nuclei were contained in the blood."

size two thirds as great as at first; and a new glandular mass had begun on the other side. The glands in both axillæ were also much enlarged. The child's health was rapidly failing, and the prognosis not difficult.

CASE II.—[From the Records of the City Hospital. Service of Dr. Cheever.]

Conrad M., aged 15, has enlarged lymphatic glands of neck, of five months' duration. An irregular, lobulated, oval tumor, four inches by three, occupies the left side of the neck, chiefly in the great posterior triangle, from behind the ear nearly to the clavicle. A smaller tumor occupies the remaining space just above the clavicle. Tumor increasing rapidly. No softening, redness or pain. No enlargement of spleen to be discovered. Patient is pale, but otherwise pretty healthy. The blood showed a large excess of white corpuscles.

May 10th, 1865.—An incision four inches long over the middle of the sterno-mastoid exposed the larger tumor, which was found very adherent to the neighboring parts. It was dissected out cleanly, laying bare on its deep surface the sheath of the carotid. Some half dozen single and enlarged glands were then enucleated; and, finally, the lower tumor, in the subclavian triangle, was removed.

Under the microscope, the tumor was found to be identical in character with the one first described, being made up wholly of glandular and connective tissue.

Ten months after the operation this patient was examined, and there was no recurrence of the tumor. The blood, under the microscope, was normal, no more than two or three white corpuscles being seen in the field. He had grown much, and was more vigorous and of a healthier color. It remains to be proved whether time will assure a permanent cure.

CASE III.—[From the Records of the City Hospital. Service of Dr. Coolidge.]

James L., aged 19, has had an enlargement of the cervical lymphatics on the left side for two years. A large, oblong cluster of hardened glands extends down the posterior edge of the sterno-mastoid. Glands enlarging above clavicle. One on the other side, which has long remained stationary. None in axilla. No inflammatory appearance. A microscopic view of the blood gives a large excess of white corpuscles, fifty being in the field at once.

Dec. 21st, 1864.—The tumor was removed by Dr. Coolidge, by a long incision parallel to the sterno-mastoid muscle. The chain of glands was followed down on the carotid sheath, seemingly *ad infinitum*. The dissection bared the *scalenus anticus*.

March 16th, he was discharged, with his appearance much improved. Unfortunately, the character of the tumor under the microscope is not recorded, and we have no subsequent history of the case, whether recurrent or not.

We have also an abstract of three cases operated on, within the past few years, in the Massachusetts General Hospital. Of these,

one recurred in the neck and axilla. One terminated in death, after a few weeks, by pneumonia. The third died a few days after the removal of a glandular tumor of the neck. At the autopsy, the anterior mediastinum was found filled with a similar mass, pressing on the vessels and bronchi; and which, it seems probable to conclude, was an enlargement of the thymus gland, corresponding to that of the proper lymphatics.*

This is neither a very flattering nor a very long exhibit of cases. But it must be remembered that very few of such tumors seem to have been removed elsewhere than here; or, if they have been, we can find no record of them in current medical literature.†

In endeavoring to sum up the evidence in favor of the operability of these morbid growths, we would cite first the opinion of Virchow, that leucocythæmia is of two kinds, splenic and lymphatic, which *may not coëxist*. Thus in our own cases (numbers two and three) there was a large excess of white corpuscles in the blood, a very considerable glandular tumor, a spanæmic aspect, but no enlargement of the spleen which could be detected by physical signs. It is true, however, that a moderate enlargement of it might be concealed in the left hypochondrium, and not discovered by percussion. But if the lymphatic tumor was in these cases the sole focus of morbid action, the nidus where was prepared and thrown into the circulation the excess of white cells, by removing this we might hope to cure the disease. If other glands, more or less distant, are affected by the same latent tendency, or if the morbid blood itself react upon them unfavorably, we cannot cherish a reasonable hope of eradicating the diathesis, even though the spleen be healthy.

But, admitting all this to be true, we may fairly use the argument that in all our cases manifest amelioration of symptoms and delay in the progress of the disease were evident after operation; nor was there an exacerbation of the disease in other glands or distant organs, as we see in tubercle and cancer.‡

* Vide Massachusetts General Hospital Records.

† It may not be improper to cite here the verdict of other surgeons on such operations. It relates, however, to the removal of enlarged glands of a serofulous nature only, no mention being made of the leucocythæmic variety.

Erichsen says:—"Extirpation of enlarged lymphatic glands is seldom necessary; and, if undertaken, may lead to more extensive dissection than might, at first, appear requisite, a chain of diseased glands often extending a considerable distance—after one has been removed others coming in sight. As a general rule, these operations should not be undertaken; cases, however, occasionally occur in which such a procedure may be deemed advisable."

In *Holmes's System of Surgery*, it is written:—

"The excision of glands is now rarely practised. Occasionally a tumor is removed from the axilla or neck, which has been of long duration and inconvenient. The large tuberos clusters of absorbent glands in the necks of serofulous subjects seemed to invite an operation; but, when once undertaken, it was found to be of a formidable character, gland after gland presenting itself for extirpation as the more superficial were removed; and the operation was, consequently, often abandoned before it was completed, and rarely had any issue but that of early death by the development of phthisis in the lungs."

‡ In Case I., every symptom improved for eight months; the white corpuscles diminished in the blood, no other glands enlarged, and the child grew stronger and healthier. In Case II., at the end of nine months there is no recurrence of the disease, and the physical appearance is extremely improved. In Case III., the patient appeared much better when he left the Hospital than when he entered it.

Next, we may justly consider these tumors operable also when they cause pain, pressure and danger to respiration, as they did in the first case reported; and when they increase very rapidly, as they do after attaining a certain size. Finally, they do not infiltrate like cancer, and although they may be numerous, yet if operated on early enough, all the really enlarged glands can be enucleated and removed.

On the other hand, the difficulties and dangers of the operation are very considerable. Probably no tumors in the region of the neck are harder to remove than these, excepting those involving the parotid gland. The whole mass of glands is very adherent to the surrounding parts, having incorporated into itself the superficial and the deep cervical fasciæ. It will nowhere yield except to the edge of the knife, and on its under side the dissection is both difficult and dangerous. The extent of the diseased parts is always deceptive. Feeling through the skin like a movable mass above the sterno-mastoid, when cut down on it is found to extend deeply beneath it. This arises from the superficial and deep chains of cervical lymphatics being so closely connected. The superficial glands are placed between the platysma and sterno-mastoid muscles, and are most numerous in the subclavian triangle. The deep glands are also numerous, and so closely united that the older anatomists called them *glandulæ concatenate*; they are situated along the sheath of the carotid artery. Both these chains are almost invariably affected.*

If a case of glandular tumor of the neck present itself desiring an operation, four points should, it seems to us, be considered:—

First, the diagnosis. This is to be differentiated by examining the patient generally—the spleen, the blood and the tumor.

The leucocythæmic patient is generally a child or a youth; and his aspect is usually more pallid than that of ordinary anæmia. His chest should be examined for the presence of tubercle; and when we have satisfied ourselves that the spleen is not notably enlarged, we should continue our investigations to the mesenteric glands and the liver.

Next, the blood must be examined on several occasions, at intervals remote from the ingestion of food, for an excess of white corpuscles. If found, we should endeavor to distinguish them into the kinds thrown off by the spleen and by the lymphatic glands, following the directions which Virchow has laid down.

Finally, we must decide whether the tumor itself be a mass of serofulous or of leucocythæmic glands; and the following differences may aid us here.

Serofulous or tubercular glands are separate, fewer, unattached to

* The efferent lymphatic trunks of all these glands open directly into the thoracic duct on the left, and the right lymphatic duct on the right side. Regarding the lymphatic glands as a sort of filterers of the lymph which is brought to them and emptied into the stroma of their loose tissue, we see how promptly any excess of white cells, which they may evolve, will be poured into the circulation.

each other, prone to inflame and suppurate, varying in size from week to week, apt to disappear and recur elsewhere.

Leucocythæmic glands are clustered, numerous, strongly attached to each other, forming a lobulated tumor, not prone to inflame and suppurate, and they steadily enlarge.

The *second* point is as to the best time to operate. And it will be obvious enough that the earlier the better; both because the adhesions will be increasing and becoming firmer, and because the tumor grows rapidly at last.

The *third* point involves the question as to how apt the tumor will be to recur. And here we must admit that we have not as yet data enough to decide accurately. Comparing it with other recurrent growths, it might be fair to say, in the present state of our knowledge, that it stands somewhere between epithelial and true cancer: occupying a position, perhaps, beside fibro-plastic, or simple recurrent tumors, which *may* not return, but which *often do*.

But, in the *fourth* place, we have a right to consider that we do not remove a leucocythæmic tumor for itself alone, but for the influence its removal may exert on the patient's whole system. In this it differs essentially from operations for cancer. If it be justifiable to remove cancer as a mere palliative operation, to delay a fatal issue, although we look for nothing else than a recurrence of the disease, sooner or later; *à fortiori* is it justifiable to remove a leucocythæmic, glandular tumor, since we have reason to believe that it may not only postpone death, but favorably influence the leukæmic diathesis, by removing a *nidus* of the disease.*

* No ultimate conclusion can be reached yet. Neither time enough has elapsed, nor have cases enough been observed and recorded to warrant a positive opinion, either as to the pathology of leucocythæmia, or the prognosis after such operations. Every year and every case observed, will, however, help us to a definite decision.

In concluding, we cannot refrain from observing how much certain ill understood morbid states of the blood seemingly run together.

Anæmia, or *spanæmia*, being a diminution of red corpuscles.

Leukæmia, an excessive production of white ones. The two conditions combined, existing in certain cachexies, as in constitutional syphilis.

Pyæmia, a somewhat analogous morbid change of the blood, as yet far from explained, and one which, although generally an acute disease, may be a chronic, wasting malady, as recently shown by Mr. Paget.—(Bartholomew's Hospital Reports, vol. i., 1865.)

Finally, the analogy between enlargement of the spleen in intermittent fever, of the lymphatics in leucocythæmia, and of the thyroid gland in bronchocele, seem to point to some connection of morbid states of all these glands, whose office is concerned with the repair or change of the blood.

We cannot help alluding, also, to the new impulse to these investigations which has been recently given here by the patient labors and the monograph of a member of this Society—"Boylston Prize Essay on Leucocythæmia, by H. F. Damon, M.D., M.M.S.S., Boston, 1863."

Since writing the above, four cases of enlargement of the cervical glands have come under my observation, in all of whom the blood has been examined, with the following results:—

CASE I.—A female of 30 years. Glands removed by operation, some time since, on left side of neck. Now, three or four large masses on right side. No suppuration now, nor at any time previous. Blood normal under microscope. No operation advised.

CASE II.—A female, about 25 years. Three large solitary glands on right side of neck. Many smaller ones in vicinity, indurated. No suppuration. Glands have been growing a long while. Aspect anæmic; health feeble. No change in amount of white corpuscles. No operation advised.

CASE III.—A boy of 15 years. Large mass of conglomerated glands on left side of neck;

Bibliographical Notices.

A Handy-book of Ophthalmic Surgery for the use of Practitioners. By JOHN Z. LAURENCE, F.R.C.S., M.B. (Univ. Lond.), Surgeon to the Ophthalmic Hospital, Southwark, Editor of the *Ophthalmic Review*, &c.; and ROBERT C. MOON, House-Surgeon to the Ophthalmic Hospital, Southwark. With numerous Illustrations. London: Robert Hardwicke, 192 Piccadilly. 1866.

THIS is an octavo of 160 pages. The authors have attempted, according to their preface, "to bring the principles and practice of modern ophthalmic surgery within a small compass, to supply the wants of the busy practitioner," &c. The book gives, in a brief and unpretending style, what the authors probably conceive to be the main features of modern ophthalmic practice. The reader familiar with the subject will perhaps miss some matters which he deems important, and as regards others may find opinions different from his own. Some of the topics may seem too meagrely treated. Yet there is very much valuable matter compressed into the book, and its careful perusal will abundantly repay not only one who wishes to get a quick survey of the present state of ophthalmology, but also the practitioner to whom it is important to compare others' opinions with his own. Books like the one before us, bringing to our notice the principal features of a subject, unencumbered with the less important details, have a certain value, but do not supply the place of complete, thorough and systematic treatises, to which latter recourse must also be had for a part of proper professional education.

While acknowledging the value of the book under notice and confessing to have read it with pleasure and profit, amid its rather remarkable general correctness, there is one inaccuracy, the importance of which must be our excuse for mentioning it. On page 146, in explaining the diagram from Giraud-Teulon, it is stated that the crossed diplopia, consequent upon looking through convex glasses at a point A nearer than the near point of the unaided eyes, is "overcome by the eyeballs converging to A," whereas, according to the distinguished author, p. 397 of the *Binocular Vision*,* this diplopia exists "*pendant que la convergence réelle demeure fixée en A*," so that when he says, page 399, "*pour les (the double images) fusionner, les yeux ont donc exécuté un mouvement de convergence mutuelle*," he must mean convergence to point nearer than the point A. That he does mean so is

have been enlarging many months. No appearance of suppuration. Excess of white corpuscles. The operation disclosed deep-seated pus.

CASE IV.—A man of 22 years. Very large suppurating sac on both sides of neck, surrounded by enlarged glands. Treated by puncture with trocar, injection of iodine, and eventually with seton. Iron internally. Glands gradually enlarging into tuberculous clusters. Large excess of white corpuscles in blood. No operation advised at present.

The peculiarity of these cases seems to be the absence of leucocythæmic blood in the non-suppurating, and its abundant presence in the suppurating ones—or those commonly called scrofulous. These results of microscopic examination differ from those previously recorded.

To whatever theory thorough experiment may ultimately lend its sanction, enough has, perhaps, been said to indicate the importance of much fuller investigation. And if this paper shall lead any to continue research in this hitherto untrodden field, the aim of the writer will have been attained.

* *Physiologie et Pathologie Fonctionnelle de la Vision Binoculaire.* Paris, 1861.

evident from page 434, where, referring to circumstances essentially the same, he expressly says, "Les yeux du sujet pointés primitivement en A, *exécutent un mouvement de convergence, leurs axes venant se croiser plus près que A.*" The Italics are in the original.

In conclusion, we recommend the book to all interested in the subject, not doubting it will contribute to the diffusion of knowledge on an important branch of the art of healing. H.

Asiatic Cholera: its Origin and Spread in Asia, Africa and Europe, Introduction into America through Canada; remote and proximate Causes, Symptoms and Pathology, and the various modes of Treatment analyzed. By R. NELSON, M.D. New York: William A. Townsend, Publisher, 434 Broome Street. 1866. Pp. 206.

THE author of this little volume was Health Commissioner during the first two invasions of cholera in 1832 and 1834, and President of the Medical Board for the district of Montreal, and had extensive opportunity of studying the disease during those frightful epidemics, the former of which carried off one eighth of the entire population of that city. He is a thorough contagionist, and bases his belief upon the history of its journey over the globe, which he describes in an exact and interesting manner, and upon personal observation. The facts connected with its spread in Canada, as he narrates them, will leave little doubt in the reader's mind that it may be or has been communicated directly from person to person, and that it always travels through the agency of man. The writer insists upon the impropriety of calling cholera a disease, and regards it simply as a poison introduced into the system, and producing its specific effects precisely as arsenic or prussic acid, uninfluenced in its course and attack by such remote causes as temperature, geological formation, moisture, elevation, fear or intemperance. He describes in detail the symptoms and pathology of the malady, and arrives at the conclusion that it is a molecular and colliquative change in the tissues of the body, induced by the catalytic influence of the cholera poison. The chapter on treatment disposes in a very summary and amusing manner of the long catalogue of remedies which have been used from time to time, and settles upon opium as the only valuable means in our knowledge. The book, in spite of its peculiarities of style, is a valuable addition to the literature of cholera.

Proceedings of the American Pharmaceutical Association at the Thirtieth Annual Meeting, held in Boston, September, 1865. Also the Constitution and Roll of Members. Philadelphia: Merrihew & Son, Printers. 1865.

THE present number contains, as usual, a great variety of interesting and valuable matter. The minutes of the meeting, an abstract of which was published at the time in the JOURNAL, are given in a phonographic report, and will be found to embrace subjects of importance to our profession. A carefully prepared report on the progress of pharmacy and chemistry, and several papers on matters connected with pharmacy and medicine, are appended, among which one on the active principle of *Rhus toxicodendron*, by John M. Maisch, of Phila-

delphia, is particularly deserving of notice. He has demonstrated that the poisonous properties of this plant are due to the presence of an acid and not to any volatile alkaloid, as has been supposed. He proposes for this the name of toxicodendric acid. There is also a valuable paper on the economical use of alcohol in the preparation of extracts, by Dr. Squibb.

Biographical Sketches of Distinguished Living New York Surgeons.

By SAMUEL W. FRANCIS, A.M., M.D. New York: published by John Bradburn. 1866.

THESE sketches were first published in the *Philadelphia Medical and Surgical Reporter*. They are brief, highly eulogistic, and impress the reader with the great number of distinguished surgeons in New York. The gentlemen, whose names, merits and operations are thus presented to public view are Drs. Mott, sen., Van Buren, Post, Hamilton, Carnochan, Wood, Sayre, Mott, jun., Batchelder, Stevens, Parker, Buck, Swinburne, Thebaud, Smith and Hosack. This does not exhaust the catalogue of celebrated names, however, for the author regrets that he has been obliged to leave out some prominent surgeons because "they positively refused to assist him in any form or shape." The style in which the book is written is as follows:—"Death alone promised a respite from the full-sized tortures chronically borne. Dr. ——— thought and acted. He cut down and removed the entire trunk of the second branch of the fifth pair of cranial nerves, making slow and sure-footed progress from the infra-orbital foramen to the foramen rotundum at the very base of the skull. I may venture to say that this has never been done by any other man, and many years will elapse ere another surgeon, though surcharged with an apoplexy of anatomical theories, will dare to leave the practical details of an earthly sphere and enter willingly the tufted chambers of the human mind. Many 'cutters' go through life without ever having seen the majestic and sanguinary hip-joint operation, but Dr. ——— himself has performed it five times." Such writing as this certainly deserves to be perpetuated on better paper than that on which the book is printed!

Clinical Lectures by Professor A. von Graefe on Amblyopia and Amaurosis, and the Extraction of Cataract. Translated from the German by HASKET DERBY, M.D. Boston: David Clapp & Son. 1866.

THESE lectures, which were translated for the *JOURNAL* by Dr. Derby, of this city, have been re-published from our pages in pamphlet form, and make a very valuable addition to the literature of ophthalmic science in our language.

PROFESSOR PROCTER, the Editor of the *American Journal of Pharmacy*, has resigned the chair of Theory and Practice of Pharmacy, which he has filled for twenty years at the Philadelphia College of Pharmacy. The students have presented to him a splendid tea-service as a testimonial of their appreciation of his long services and eminent acquirements.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

MAY 28th.—*Malformed Fœtus, with numerous Fractures of the Bones.*—Dr. WYMAN showed the specimen, and described it as follows :

“For the fœtus here described I am indebted to Dr. Anson P. Hooker, of East Cambridge, who placed it in my hands for dissection. It was supposed to be of the full term, measured twelve inches in length, and weighed four pounds and three ounces. The legs measured only four inches, were much bent, and the soles of the feet were turned upwards and inwards. The nails of the fingers were narrow and arched, as in the monkey’s, but those of the toes were normal.

“The head was flaccid and fluctuating, but was found to contain brain only. Nothing abnormal was found in the viscera or other soft parts. The cranial bones are exceedingly brittle, and were broken in several places during birth ; they are widely separated from each other, and the space between the parietals and occiput is filled with numerous more or less reticulated centres of ossification. The long bones of every portion of the body have been fractured, some of them several times, and apparently at different periods, as they were in different stages of repair. The following is a list of the fractures observed :—

	Right.	Left.		Right.	Left.
Clavicle, . . .	2	3	Legs,	1	1
Humerus, . . .	2	1	Ribs,	34	33
Forearm, . . .	3	4		—	—
Femur,	4	2	Total, . . .	46	44

In all, 90 fractures.

“It will be seen from the above list that the aggregates of fractures very nearly correspond on the two sides of the body. The fractures are in all cases in a direction at right angles to the axis of the bone, and where several of them occur they give the bone a jointed appearance not unlike that of bamboo.

“Sandifort, in his admirable work, *Museum Anatomicum*, vol. iv., tab. xlvi., fig. 1, and tab. lxx., figs. 2 and 3, has figured and described a similar specimen, and Vrolik has reproduced one of the figures in his *Embryogenesia Hominis et Mammalium*, tab. xci.”

MAY 28th.—*Scirrhus of the Pylorus.*—Dr. MORLAND reported the case.

The patient, Mrs. A., aged 49 years, a widow, entered the City Hospital under his care, April 27th, 1866. She was a sempstress, a native of Massachusetts, and a resident of Boston. She belonged to a very healthy family ; no hereditary tendencies to disease were discoverable. She has never had very good health herself, however, although she once weighed 225 pounds. Has had typhoid, brain and lung fever, according to her own statement, and has been subject to slight and short febrile attacks. By her own account, she had had three apoplectic seizures, seven years ago, and has since been very sub-

ject to headache. No paralysis remains. Has had no children nor miscarriages. Catamenia ceased at 35.

For two years past, she has suffered from persistent vomiting, with pain and distress in the region of the stomach. About the first of last January, after exposure to cold and wet, diarrhœa set in, and has continued, with occasional exacerbations and remissions, until her entrance at the Hospital, and was then one of the most troublesome features of her case. Has often had seven evacuations daily. Has had much pain, and a sensation of throbbing, in the abdomen; also palpitation of the heart. Fæcal matters dark-colored and watery. Appetite good, but patient always vomits after eating, and has lost a good deal of flesh. When diarrhœa first came on, the urine was high-colored and turbid, but at the date of entry into the Hospital it was normal. For a fortnight previous to her admission she was confined to her bed, being too weak to sit up.

On April 27th, she was in bed; skin very yellow over whole of body, the citrine hue being most marked about the face, neck and chest. Tongue flabby, cracked and fissured; tenderness on palpation over the epigastric and hepatic regions; headache; extreme thirst. The feet were somewhat œdematous. Pulse 88, small in volume.

With the view of controlling the diarrhœa, subnitrate of bismuth, combined with powdered gum Arabic—five grains of each—was administered at first, thrice daily. Elixir of opium was also given—April 29th—twenty-five drops at first, and ten drops, subsequently, after every other discharge, until some effect was noted. Gum-water for drink. Hot water, simply, on spongio-piline, as a fomentation to abdomen. On May 2d, opiated fomentations over the same region. Two ounces of brandy, in water, daily. May 3d, the report from the Hospital record-book reads: “*R. Tincturæ ferri chloridi, guttas, vi., ter in die sumend: diarrhœa controlled.*” On the 5th, the tongue had assumed a better aspect, and “constipation” is reported. Wine-*wh*ey was substituted for the brandy, but, on the 6th, the vomiting seeming to be aggravated by it, the brandy and water was resumed. There was less abdominal tenderness. Warm-water enema ordered.

May 10th.—Great distress from vomiting. Ejected matters are of a dark color and deposit a black sediment, but have not a purely “coffee-grounds” character. Bismuth stopped.

May 14th.—Great pain over region of stomach. Hypodermic use of morphia in vicinity of pain.

May 17th.—Suffers extreme pain, and is very weak. Eats nothing. Has been gradually growing deaf, and is now nearly totally so. Beef-tea enemata to be given. Morphia to be repeated, hypodermically.

May 19th.—Vomiting, to the amount of four pints; patient refuses food, and is very much exhausted; suffering, also, from thirst. Creasote, in sherry wine, was administered—one drop in two drachms, thrice daily. Ice to be taken instead of water. Chloroform, on spongio-piline, to epigastrium. Hypodermic injection of morphia.

May 21st.—Died this morning.

From the first, malignant disease of some organ had been diagnosed, and very soon decided to be seated in the stomach, although, from some enlargement of the liver—as indicated by palpation—it was supposed that viscus might also be implicated. The *post-mortem*

examination was made by Dr. SWAN, and his account is appended. Dr. S. also showed the specimen to the Society.

Autopsy, May 21st, 1866.

Thoracic organs healthy.

Abdomen.—The round ligament of the liver was short, thick and flattened, and contained much fat mixed with tough connective tissue. It lay directly along the median line and adhered, anteriorly, its whole length, by fibrous development, to the abdominal wall; behind, in like manner, it was fused to the liver and omentum. The great omentum also presented a firm, thickened, semicircular, apron-like mass of fat and fibre, with a comparatively thinned free margin.

Such was the consolidation of parts in the epigastric region that, almost of necessity, the stomach was removed with a portion of the liver, omentum and transverse colon. The walls of the stomach were gradually thickened and stiffened towards the pyloric end, principally in the muscular coat, and at the site of the pyloric valve presented, as seen from below, a regularly cylindrical, abruptly rounded extremity an inch in diameter, with a granular, cauliflower surface and small pervious central opening—all which, with the healthy duodenum, which here began outside this growth, strongly resembled a cervix uteri and its neighboring vagina.

Within the lower half of the stomach was a very large, offensive, sloughy ulcer, with raised edges, which were in parts thin and recurved, in parts nodulated; very irregular in outline and depth. Its surface was of a mixed ashy gray and blackish olive color, and when immersed in water presented many loose, semi-detached shreds of dead tissue. At the deepest portions of the ulceration the coats of the stomach had been completely perforated, so that the bare parenchyma of the liver, which in the immediate vicinity was softened and superficially discolored, formed the limit of the cavity, while extensive abnormal but provisional adhesions round about prevented any escape of material into the peritoneal sac.

The mucous coat was generally healthy; but there was a red dotting in the region of the ulcer, which seemed to show a certain amount of irritation. A little dirty fluid was found in the cavity of the stomach. It did not resemble blood.

The peritoneal lining of the abdominal wall was whiter and more opaque than usual. The uterus and appendages were so bound down to the neighboring parts as to be difficult of removal. No nodular growths were found in the vicinity.

The right kidney was one third the normal size; the left of natural size, but remarkably pale. The capsule of the latter was slightly adherent, and the tubuli, though of normal size and outline, and having free canals, contained finely granular epithelium whose nuclei were generally invisible, except with the aid of acetic acid. There was no tendency to desquamation. The atrophied kidney was not examined microscopically. Its color was normal.

MAY 28th.—*Encephaloid Disease of the Stomach and Liver*.—Dr. C. W. SWAN showed the specimens and gave the following account of the case, communicated to him by Dr. Hobbs, of this city, in whose practice it occurred.

J. M., æt. 62, tobaccoconist. Never enjoyed good health. When young, bled at the lungs. Never was a good eater, having always

dyspeptic troubles and constipation. Never had hæmatemesis. Slept poorly. His mother died of consumption.

In March, 1865, he fell upon his back, and was brought home insensible. From that time he dated a shortness of breath, which troubled him always afterwards, and an intense burning pain at the cardiac end of the stomach, or in that vicinity, extending towards the epigastrium. In January, 1866, he had another fall, striking at the epigastric region across a board. This was followed by severe pain, together with hard swelling at the left of the epigastric region, both which, to a greater or less degree, persisted. He was confined to the house during nine weeks before death, and at the end of the eighth week the swelling in the left side was punctured, and a large quantity of pus, or something like it, discharged. Palpation from the time he was first seen by Dr. Hobbs, some time since his injuries, always revealed hard masses in the region of the stomach and liver. Died May 27th.

At the autopsy, a fungous encephaloid growth, three inches in diameter, was found nearly midway on or near the lesser curvature of the stomach, while the liver was occupied and distorted by three or four very large spherical masses of encephaloid disease, most of which was in a state of fatty degeneration, and having in the rough a whitish granular appearance. One of the largest of these tumors was completely buried from view in the right lobe. The swelling which was incised as an abscess was found to consist in a degenerated encephaloid mass of the left lobe.

Head not examined. No other cancerous or other disease found. Lungs were pale, collapsed and empty; free from tuberculous disease.

Dr. Jackson directed the attention of members to the situation of the disease in this case, which, as generally with encephaloid disease of the stomach, was at some distance from its orifices. This would account for the fact that the symptoms attendant upon this affection of the stomach are not so severe as in scirrhus of that organ, which is usually seated very near one of its outlets.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 2, 1866.

INSPECTION OF BRIGHTON SLAUGHTER HOUSES.

FORTUNATE, indeed, are the inhabitants of Boston, that to the other great public nuisances which produce so much sickness and which threaten so much more during this and the next month, we have not added the great public nuisance of slaughter houses within the city bounds. Fortunate, indeed, are we at the present time, with a Board of Health which is too apt to overlook the most dangerous sources of sickness, while it exercises its power in a very moderate way over minor evils. We have seen what difficulties the powerful Board in New York has to encounter in suppressing the slaughter houses of the metropolis, and small indeed would have been the chance of any such reformation here had circumstances required it.

The thriving town of Brighton, as most of our readers know, is the seat of the principal *abattoirs* which supply our market with butchers' meat, and the most unwholesome and overpowering odors for which it is famous are thus happily at least seven miles away. Still, the whole process of conducting these establishments is matter of primary interest to all the residents of Boston. We want to know what sort of cattle are killed there; how the meat obtained from them is cared for, and whether there are any circumstances connected with the various processes there carried on likely, directly or indirectly, to be prejudicial to the public health. The pamphlet before us, therefore, which contains the results of a hygienic inspection of the Brighton slaughter houses by Dr. Henry G. Clark, of this city, made at the request of the Board of Health of that town, contains much matter of general interest to Boston.

The pamphlet begins with a sober and manly appeal on the part of the Board of Health to the citizens of Brighton, to do all in their power to coöperate with them in the measures necessary to secure perfect cleanliness in all of the numerous slaughtering establishments of the town, in view of the possibility of an invasion by cholera during the present year. It does great credit to its authors, setting in their true light all selfish, pecuniary considerations in connection with the great public questions at issue. It urges on broad grounds of public comfort and advantage, to travellers on their highways and to the residents of neighboring towns, as well as to those most directly interested, the duty of making a thorough reform. It is evident these gentlemen are determined to do theirs regardless of personal opposition or influence, and they deserve the public thanks therefor. Their names, as appended to the appeal, are W. D. Bickford, W. R. Champney and C. H. Breck.

It needs but a glance at Dr. Clark's report which follows, to see that here is an Augean stable to be cleansed indeed. Utterly disgusting and sickening as the details which he gives are, they are not exposed one moment too soon, and the citizens of Boston must rejoice albeit with trembling [of the diaphragm] that the nauseating facts are thus made public. Dr. Clark's own statements are of more value than any comments on them, and we therefore give the following extracts. Speaking of the slaughter houses he says:—

"They were variously situated: some upon high ground, and with every opportunity for drainage and cleanliness, and others upon low or level grounds, where these favorable conditions do not exist.

"They all, with an exception to which I shall refer, were in a condition and conducted in a manner which I consider both disagreeable and dangerous, directly and remotely, to their immediate vicinage, and to public and individual health.

"The slaughtering being done under cover, the blood, except what was saved in casks for sale or transportation, was suffered either to flow down through the floors into a sort of open cellar, or into the grounds immediately adjoining. The rest of the 'offal'—a term which includes all the parts not sent to market, viz., the entrails and their contents—was disposed of in the same way. At all the slaughter houses hogs were kept and fed upon this material, reeking hot, or rotten as it might be by exposure to the sun and air, and to the wallowing of the swine in it. In some of these establishments all this

filthiness was aggravated by long accumulation and by fermentation in stagnant pools of water.

"In several of the largest of the slaughter houses, which I will hereafter name, the water in the adjacent streams, or brooks of water, was contaminated to a very marked degree with this offensive material, being itself, in one instance, that of the hog-slaughtery, colored with blood for a long distance.

"The offal, in most instances, is permitted to remain on the premises, sometimes being partially deodorized by admixture with loam, and then spread on the grounds near by as manure, and sometimes sold to be carried off in open carts for the use of farmers.

"The stench about all these places so kept is horrible, and although the day of the inspection was a fine dry one, and with a free north-west wind blowing, the odor from some of them could be observed for more than half a mile very strongly.

"The poisoned waters from the rear of the Messrs. Brooks and Jackson's ran off in the direction of and through Nonantum Vale towards the Charles River. That from the hog slaughter house of Messrs. Boynton & Curtis, after reddening quite a pond in the rear of the buildings, ran off in a brook through the lands of Mr. Charles Dana towards Brookline, making its outlet, as I was informed, by or near the tannery.

"The grounds near the points named and westerly of them, being manured with heaps of the material, the whole neighborhood was infected with its odor, and the manure which was being taken from the hog-pen, while we were there, to be carried to Brookline in an open cart, was most offensive. Another water-course, starting from the stagnant water in the rear of the sheep slaughter houses, on River Street, finds its way towards Charles River."

Dr. Clark then goes on to mention by name a number of the principal establishments, giving the processes adopted in each, which are as offensive as it is possible to conceive of. Of those where beef cattle are killed nearly all were in the most filthy condition. In all but one of them, numbers of hogs were kept whose only food was the horrible putrifying offal from the slaughter house! Not a particle of vegetable food are they allowed! And when these unclean scavengers are themselves slaughtered, Boston market is their destination. High time indeed that those of our people who are not deterred from eating pork by the dread of trichinæ should know on what Brighton pork is fed. One establishment only of those which he visited Dr. Clark mentions, that of Saunders and Hartwell, in which due regard to cleanliness is observed, and the swine here fed are supplied weekly with corn, while the offal is removed often enough to prevent the generation of any very offensive odor. Although this is a large establishment, he says, "the smell was not more than would be noticed to the leeward of any ordinary pig sty." Dr. Clark declares that to be, with slight improvements easily introduced, "a model slaughter house."

The inspector next describes the slaughter houses for sheep, then those for swine. The most that is said in mitigation of the abominations of all these places, of which we spare our readers the details, is, that one proprietor "is making some improvements towards cleanliness." Dr. Clark also pronounces the bone-boiling establishment

near River Street an unhealthy nuisance, and says, in summing up his whole account of all the places of which we have been speaking, that "any description must fall short of the perfectly disgusting reality, which can only be appreciated by a personal inspection."

As the result of his inspection Dr. Clark recommends:—

"1. The immediate and thorough removal, *after deodorization*, of all the foul material accumulated in the vicinity of the slaughter houses; this to be buried in the earth, or so admixed with peat, charcoal, lime, or other substances, as to destroy and neutralize all its odor.

"2. To require, for the future, *all the offal to be taken away* in tightly closed and properly constructed carts, or buried deeply, *before it becomes offensive by decomposition*.

"3. To prohibit the keeping of swine in these localities; or allowing them to be fed on such disgusting food."

He adds, "If anything could add to the objections already so widely felt to the use of pork as food, not only among Mussulmen and Israelites, but more lately from dread of trichinous disease, it would be to pay a visit to the slaughter houses of Brighton.

"In conclusion, I think it right to say that, as such nuisances in all seasons must be prolific and provoking causes of disease, of course in the expected advent of an epidemic which delights in filth and disagreeable odors, and which invariably seeks and generally finds its victims wherever *they* are found, it is peculiarly your duty under these circumstances to remove them at once and forever."

Sickening as these revelations are, this community is under great obligations to Dr. Clark for the frank and fearless way in which he has made them. They are almost enough to convert our whole community to vegetarianism. From the spirit manifested by the Board of Health of Brighton we cannot doubt they will persevere in their labors until the much-needed reform is radically accomplished.

In connection with the above, some statistics with which we have been furnished will be found not uninteresting. We learn that the number of slaughter houses in Brighton is 34; of swine slaughtered annually, 23,781; of beef cattle, 25,088; and of sheep, 170,517. The Brighton people have entertained the opinion that the stench from all these establishments was not unhealthy. For this reason prosecutions for maintaining a nuisance have been infrequent, and butchers have not taken the pains that they might to keep their premises clean. We hope the minds of the Brightonians have been fully convinced by Dr. Clark's report; their sense of smell has probably long since lost all reliability as a guide in such matters.

Graduates from Harvard Medical School who have served in the War.—

Of the nine hundred and thirty-nine sons of Harvard who served in the recent war, two hundred and forty-three were graduates and pupils of the Harvard Medical School. It is proposed to publish an historical work which shall contain a full record of all whose names are on this honorable roll. It is particularly desirable to learn with reference to each person the following facts: "The date of entering the service; commissions, promotions or honors which he has received; a brief current account of his entire term of service; his battles,

wounds, sickness ; official mention, any incidents, remarkable exploits, or fortunate escapes ; manner and date of leaving the service ; place, time and manner of death, if deceased. Copies of memoirs, discourses, resolutions, &c., will also aid in the prosecution and perfection of the work. Any information of this kind may be transmitted to Dr. Francis H. Brown, No. 97 Waltham Street, through whose indefatigable industry the full roll of the graduates who had served in the recent war was prepared for the new Triennial Catalogue of Harvard University.

From a recent discussion on cholera, in the New York Academy of Medicine, reported in the *Medical Record*, we take the following extracts :—

“ Dr. Sayre said that it was necessary that definite views, as emanating from responsible bodies, should be extensively circulated. He could not but condemn the action of the Board of Consulting Physicians in Boston, Mass., to whom he had sent facts incontrovertible, with the result of finding them ignored, and such phrases as these adopted in the room of logical conclusions : the Board regrets the ‘ change of views ’ on the part of Dr. Read, ‘ the cholera cannot be barred out,’ it ‘ comes through the atmosphere,’ and was a ‘ something upon the people.’ Such high authority should be met, otherwise vague deductions would take the place of positive knowledge.

“ Dr. Herzog pronounced quarantine to be the true safety-valve. Periods of variable length had been adopted by different authorities, extending from ten to twenty-two days ; the International Quarantine Convention, for instance, had fixed upon fifteen days as the limit. . . .

Dr. Herzog, in further elucidation of his views regarding the incubation of the disease, gave the history of the origin of the epidemic upon Ward’s Island. [This is an epidemic which has been claimed by the non-contagionists as an instance of the spontaneous generation of Asiatic cholera.—Eds.] He said that it had been brought from the ‘ Atalanta ’ by a nurse who had been ten days aboard of the vessel, and had been admitted into the State Emigrant Hospital for a sore foot, where he remained five days. The cholera manifested itself six days after this patient’s departure. . . .

“ Dr. Harris suspected that the cases which had recently occurred in the city were traceable to infected clothing from the cholera ships ; a quantity small, to be sure, but sufficient for mischief, may readily have been introduced into the city after escaping the vigilance of officials. Such clothing would most likely be found in Pitt, Willett, and like streets of that section of the city. He would cite, as a probable corroboration, the case of the patient in Thirty-fifth Street, who was seized with the disease after a visit to that quarter.”

Cholera in New York and other seaboard Cities.—This disease still exists to a very limited extent in New York, Brooklyn and Philadelphia. On July 30th the report was 14 new cases and 4 deaths in New York ; 31st, 19 cases and 7 deaths ; 3 deaths on Blackwell’s Island on the 30th ; 14 cases and 8 deaths in Brooklyn on the 30th, 14 cases on the 31st ; 6 cases and 2 deaths in King’s County Penitentiary on the 30th. On the 29th and 30th 17 cases and 5 deaths were reported

in Philadelphia. There can be no reasonable doubt that all these cases were originally due to the imported disease at quarantine. Whole number of deaths on Tybee Island, where it was conveyed by the troops from New York harbor, to the 29th ult., 95; the disease was subsiding. The cholera is rapidly disappearing among the troops on Governor's Island in New York harbor. There are not more than a dozen cases on the island.

American Dental Association.—This Association is holding its sixth annual meeting in the Representatives Hall at the State House. The following officers were chosen at the first meeting, July 31st:—*President*, Dr. C. P. Fitch, of New York; *First Vice President*, Dr. W. H. Morgan, of Nashville, Tenn.; *Second Vice President*, Dr. L. D. Shepard, of Salem, Mass.; *Corresponding Secretary*, Dr. A. Hill, of Norwalk, Conn.; *Recording Secretary*, Dr. J. Taft, of Cincinnati, Ohio; and *Treasurer*, Dr. W. W. Sheffield, New London, Conn.

Judge Brady has sustained the Board of Health of New York in their attempt to suppress nuisances, thus giving their orders the authority of law.

Subcutaneous Injections in Cholera.—Dr. Isaac Ashe, of Birkenhead, reports, in the *Medical Times and Gazette*, two cases of the successful treatment of cholera by subcutaneous injection of morphia. In one the disease had existed three hours, the other eight hours; both were in a state of collapse. Relief of all the symptoms followed in fifteen minutes after the injection of fifteen minims of liquor morphiæ acetatis. In the second case, the injection was repeated some hours after the first, as the vomiting and purging had not entirely ceased. Both the patients were up and about the next day, and the one who had been the most severely attacked was able to start on a journey.

The Rinderpest in England.—According to the official report, during the year since the outbreak of this disease, 248,965 cases have been officially reported; 80,597 of these have been slaughtered, 124,187 have died; it was considered necessary, also, to kill 51,343 healthy cattle which had been exposed to the disease. There were 32,989 recoveries. Among the sheep, 4,463 were affected and 4,002 died or were killed.

Gastrotomy successfully performed in a case of Ruptured Uterus.—Dr. E. Miles Willett reports, in the *Medical and Surgical Monthly*, of Memphis, a case of gastrotomy successfully performed after rupture of the uterus. The operation was delayed until two hours and a half after the accident took place, owing to the opposition of the friends of the patient. At the end of a fortnight the wound in the parietes had entirely united and the patient was doing well. She soon recovered her health under tonic treatment.

Menstruation and Abortion at seventy-two Years of Age.—The *Lancet* quotes from the *Bulletin de la Société de Médecine d'Angers*, the case of

a woman seventy-two years of age, who aborted at the end of the second month of pregnancy. Her menstruation began at sixteen, she was married at twenty-eight, had six children, the last when she was forty-eight years old. From this time the catamenia disappeared until March, 1863, twenty-four years from the previous recurrence. They continued three days, and returned the following four months. In August they appeared for one day. Nausea soon followed, and in October a foetus of two months came away. The patient did well, but died three months after from extensive bronchitis.

Death of Mr. Toynbee.—Recent London papers announce the accidental death of this distinguished aurist by the inhalation of an overdose of a mixture of chloroform and hydrocyanic acid, with which he had been experimenting upon himself.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 28th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week	61	47	108
Ave. mortality of corresponding weeks for ten years, 1855—1865	47.2	43.2	90.4
Average corrected to increased population	00	00	99.47
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—An Essay on Hydrocyanic Acid, with Experiments. By Robert Amory, M.D.—An Improvement in the form of Probes for the Lachrymal Passages. By Henry W. Williams, M.D.—Ruptured Perinaeum treated by a new method. By Samuel Cabot, M.D.—Collodion. By John P. Maynard, M.D.—Proceedings of the Maine Medical Association.

BOOKS AND PAMPHLETS RECEIVED.—DaCosta on Medical Diagnosis. Second Edition.—Cholera: its Nature, Cause and Treatment, simply, scientifically and practically explained. Pamphlet. By C. Searle, M.D., M.R.C.S.E., &c. &c. London.—The Application of Sutures to Bone in recent Gun-shot Fractures. By Benjamin Howard, M.D. Pamphlet. London.

JOURNALS RECEIVED.—Medical Record, Nos. 10 and 11.—Medical Reporter, Nos. 9 and 10.—Medical and Surgical Reporter, Vol. xv., Nos. 1, 2, 3.—New York Medical Journal for July.—Richmond Medical Journal for July.—Atlanta Medical Journal for July.—Dental Cosmos for July.—Journal of Materia Medica, Pharmacy and Chemistry for July and August.—Chicago Medical Journal for July.—Chicago Medical Examiner for July.—L'Union Médicale, Nos. 69-86.—American Eclectic Medical Review for July.—Buffalo Medical and Surgical Journal for July.—Journal de Médecine de Bordeaux for June.—Cincinnati Journal of Medicine for July.—New Orleans Medical and Surgical Journal for July.—American Journal of Medical Sciences for July.—Medical News and Library for July.—Cincinnati Lancet and Observer for July.—Dental Register for July and August.

MARRIED.—At Northampton, July 25th, Dr. A. W. Thompson, of Northampton, to Mrs. Orleana Boker, of Newport, R. I.

DIED.—At Hart's Island, New York Harbor, of Asiatic cholera, James Theodore Calhoun, Assistant Surgeon, U.S.A., and Medical Director of the Post.—In New York City, July 18th, Dr. William R. Donaghe, aged 36.—In Philadelphia, July 5th, after a brief illness, Dr. Paul Beck Goddard—a physician of much ability, and well known for his devotion to sick and wounded soldiers during the late war.

DEATHS IN BOSTON for the week ending Saturday noon, July 28th, 108. Males, 61—Females, 47. Abscess, 1—accident, 2—apoplexy, 2—disease of the bowels, 3—congestion of the brain, 1—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 33—cholera morbus, 1—consumption, 12—convulsions, 3—debility, 3—diarrhoea, 6—dropsy, 1—dropsy of the brain, 4—drowned, 1—dysentery, 4—erysipelas, 1—scarlet fever, 1—typhoid fever, 3—typhus fever, 3—disease of the heart, 3—infantile disease, 3—inflammation of the lungs, 3—marasmus, 3—old age, 2—peritonitis, 1—premature birth, 1—unknown, 9.

Under 5 years of age, 63—between 5 and 20 years, 8—between 20 and 40 years, 14—between 40 and 60 years, 11—above 60 years, 12. Born in the United States, 87—Ireland, 16—other places, 5.

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CEREBRO-SPINAL MENINGITIS.*

By S. G. WEBBER, M.D.—AN ESSAY WHICH RECEIVED THE BOYLSTON MEDICAL PRIZE.

[Communicated for the Boston Medical and Surgical Journal.]

ON several occasions an epidemic has prevailed, which, by its fearfully rapid and excessive mortality, has given rise to great terror in the community. Popularly known as spotted fever, its more classic name is cerebro-spinal meningitis. It has also been known by the names "typhus syncopalis," "winter epidemic," "catarrhal fever," "peripneumonia notha," &c.

The symptoms of the disease will be considered first, as exhibited in 164 cases during the last few years, together with its pathology and the most successful mode of treatment. Afterwards, it will be well to review the histories of similar epidemics in the past; the methods of treatment which have been advocated; and from these records discover, if possible, the causes of the disease and its nature.

SYMPTOMS.

At the very commencement, a difficulty is encountered—the disorders of sensation or function caused by the disease are so various that it is impossible to include them all in a single description.

"To describe a disease, so as to be readily recognized by one who has had some acquaintance with it, may easily be done; but so to exhibit or paint a disease, attended with multifarious symptoms, that it may be immediately apprehended by one, upon his first observance of it, is more difficult, especially when it appears, in different cases, in a variety of forms."†

Three varieties of the disease may be recognized—1, where the nervous centres are the principal seat of its action; 2, where its force falls upon the lungs; 3, other cases, involving especially the

* By an order adopted in 1826, the Secretary of the Boylston Medical Committee was directed to publish annually the following votes:—

1st. That this Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.

2d. That in case of publication of a successful dissertation, the author is to be considered as bound to print the above vote in connection therewith.

† Dr. E. North on Spotted Fever.

blood and the integuments, with no marked change in the internal organs.

The first variety has been most prevalent during the late epidemic in this country, cases of the other varieties having been comparatively rare. Its symptoms will therefore be considered first, and subsequently the differences between it and the other varieties will be noticed.

I.—In the first variety, that, namely, in which the nervous centres are most seriously implicated, the attack sometimes commences with the usual precursory symptoms of fever; more frequently, however, the attack is sudden and unexpected; the patient continues his ordinary occupation until interrupted by severe headache, pain in the limbs, the back of the neck or along the spine; or the first symptom of disease may be nausea and vomiting, or a sense of chilliness. Following these abnormal sensations come delirium, great restlessness, nausea and vomiting. The pain in the head, back and limbs continues; fever sets in; the appetite is lost; the thirst is increased; the surface of the body becomes hot, or it may be warm and moist; in some cases it is cold to the touch, and a sense of chilliness is experienced by the sufferer, or the face only is hot and flushed; the conjunctivæ are injected; the pupils are more frequently dilated than contracted, and insensible to light. Sometimes, especially in severe cases, spasms occur on the first day, and stiffness of the muscles of the neck, with retraction of the head. Coma and general collapse are very rare so early in the disease, except in grave cases. Occasionally, petechiæ appear the first day on the body and limbs, not commonly on the face. At the commencement the pulse is often normal, or only slightly increased in frequency; in many instances, however, it is more rapid than in health, and full, though wanting in strength; occasionally thin and hard, or weak and feeble. The respiration is not materially altered. The tongue is but little changed from its natural condition; sometimes it has a white fur and is rather dry. In very severe cases, it may be covered with a brownish fur even on the first day. Not unfrequently the throat is sore, and on inspection is found more or less inflamed; the tonsils may be swollen.

As the disease continues, the symptoms referable to the nervous system become more severe. Headache and pains in the back of the neck, along the spine and in the limbs, if not previously experienced are now felt; and where slight at first may become excessively severe, eliciting cries of agony even from the strong and robust. The surface of the body, especially at the neck and back, becomes tender, so as not to endure pressure. Delirium is a more constant symptom, usually of a talkative or muttering variety rather than wild, though sometimes the patient will struggle to rise from his bed. In place of the delirium, or succeeding it, occur stupor and coma, the patient falling into a heavy lethargy, from which he can be

aroused only with difficulty, and which becomes deeper and deeper till it ends in death. Among other less frequent nervous symptoms are paralysis of some of the limbs, jactitation, subsultus tendinum, floccitation, sleeplessness, moaning and a general trembling, similar to that of mania à potu.

The surface of the body remains hot, or is sometimes cool; it is not very often dry. The pupils continue dilated, are sometimes contracted, or unequal, and insensible to light; rarely there is strabismus. Spasms and opisthotonos continue, or occur where they did not previously exist. Generally, there is nothing noticeable in regard to the decubitus. Petechiæ appear in the course of from two to six or seven days. The pulse is variable, usually more rapid than in health; as death approaches it becomes slower, though at times its rapidity and force are retained until very near the last minutes of life. With the progress of the disease the tongue becomes darker colored and drier, and, with the teeth and lips, is covered with sordes, or it remains white and dry; sometimes it continues moist throughout the attack. Vomiting and nausea occur, but not so frequently as at the commencement. There is usually constipation, passages being obtained only by means of medicines; occasionally diarrhœa exists, which can be easily controlled. The urine is frequently loaded with lithates, and is sometimes secreted in only a small quantity. Cases have been recorded where albumen occurred. Both fæces and urine are often passed involuntarily, when the condition is very low.

These symptoms are probably never all found together in any one case. In very severe cases time is allowed for only a few of them to become developed. The first shock of the attack may be sufficient to destroy life, and only intense headache will be noticed, followed quickly by delirium and coma. The following cases illustrate the rapidity with which the disease may terminate.

CASE I.*—"A. B., æt. 19, of good habits and vigorous health, complained in the night of severe pain in the head, and was at daylight found groaning, with his hands pressed upon his abdomen, as if suffering from colic. I saw him immediately; found him groaning, though insensible; paralyzed in one arm and leg; occasionally convulsed in every part except the face; pupils equally and moderately dilated and insensible to light; conjunctivæ of a dull red hue; face darkly flushed; tongue and teeth coated with sordes; pulse frequent and full; breathing stertorous. He continued in the same state, and died in the afternoon."

CASE II.†—"When I first saw the patient, he had been sick but two or three hours, and was, at the time referred to, partially unconscious. Would respond, but not readily, to a question asked him; special and general sensation seemed not much impaired; in a few minutes he could not hear. The pupils were now much dilated, and

* Recorded by Dr. William Frothingham, in the *American Medical Times*, April 30, 1861.

† From Transactions of Illinois State Medical Society, 1861.

did not respond to a strong light; nasal passages insensible to carbonate of ammonia, and lips and tongue to tincture of capsicum. General sensation seemed, if not gone, much impaired; and spasmodic muscular movements ceased first in the upper, last in the lower extremities, and in both sides simultaneously. Diaphragm apparently ceased to act. A few attempts at purely thoracic respiration were made, and the patient ceased to breathe. The heart, however, continued to act well to this period, and did not cease to act until nearly two minutes after respiration ceased."

CASE III.—A case of a lady is reported by Dr. Lamb in the *American Journal of Medical Sciences* for July, 1863. "She took her tea as usual, about 7, P.M. At 8, she complained of acute pain in the head, and giddiness. She was carried up to the bedroom in the arms of her husband. Body warm and extremities cold; pulse irregular and intermittent, threadlike; pupils greatly dilated and vision very indistinct; delirious. She became comatose at 4, A.M., and died at noon, about fourteen hours from the first feeling of indisposition."

Another case is related in the same Journal by Dr. Lidell, which was fatal in about five and one half hours. Here excessive pain between the shoulders, like that caused by "pressing a bar of hot iron into his backbone," was the principal symptom. He had three attacks of this, and died during the last one.

Some of the symptoms which have been briefly enumerated in the general description, require a more extended and careful notice.

Among the earliest symptoms have been mentioned those which are most frequent; but so varied is this disease in its manifestations that almost any part may become the seat of attack in the first instance. In one case hæmaturia, with pain in the penis, introduced the disease; in another, the symptoms of a severe cold first attracted attention; in another, tetanus; in a number of instances soreness of the throat was early witnessed.

Pain is almost a constant attendant upon this disease, though varying in position and severity. Usually it is very severe; sometimes it is slight. So severe is it at times as to occasion syncope; and may not death in the fourth case, just related, have been caused by pain alone? Almost every case is accompanied with headache, which is more frequent in the forehead; but the occiput and vertex are not spared. The back of the neck is a very common locality for pain, and so is the spine. The limbs not unfrequently are attacked with it, and in many cases it is confined to the joints, or most severe in them; in one case, as already stated, pain in the penis was among the first symptoms of the attack. Severe colic may be experienced. The character of the pain is often rheumatic, especially when seated in the joints; at other times it is of a burning, stinging character; it is rarely dull and heavy. Closely connected with this symptom, and, indeed, constituting one variety of it, is the abnormal

tenderness of the surface. This is not unusually general, and so exceedingly sensitive does the surface become that the least touch occasions cries of agony, even the bedclothes being insupportable. When local, it is most frequently situated at the back of the neck and along the spine. Sometimes tenderness is observable in the right iliac region, accompanied with tympanites, as in typhoid fever. Tenderness is found also in the epigastrium; it is most frequently experienced late in the disease. There is rarely intermission in the pain—this is particularly the case with the headache; when this symptom has once shown itself, it continues throughout the attack, and even during unconsciousness its existence may be proved by pressure upon the occiput or nucha causing uneasy movements, as if to escape the touch.

Delirium is an almost constant symptom, and sets in early, if the attack is at all severe, even on the first day. It is not usually very wild; but is more frequently of a mild character and often so slight that the patient may be readily aroused sufficiently to answer questions rationally, though as soon as he is left to himself he will relapse into a low moaning or muttering, and perhaps will become quite wild. As the disease continues, the delirium becomes more and more constant, and the difficulty of attracting his attention increases. At length stupor is observed, which may at first be noticed with a feeling of relief by his friends, as they suppose that sleep has brought a remission to his suffering; but after a while it is found that his breathing has changed, or the sleep continues so long that attempts are made to arouse him, and then it is discovered that the sleep is not sleep but coma, which gradually deepens until it is impossible any longer to arouse him, and death occurs.

The senses, especially sight and hearing, are sometimes impaired and not regained until convalescence has been established for many days. The same is true in regard to the use of the limbs.

Spasms are usually of the tonic kind. The muscles of the back or neck are most frequently attacked, and thereby the head is bent backwards; the neck and spine may likewise be curved in the same direction, and complete opisthotonos occur. So great is the force by which this position is maintained, that even under the influence of ether or chloroform it is often impossible to straighten the body. Sometimes the position can be rectified, but then respiration may cease until the opisthotonos is allowed to return. Trismus may occur without any other tetanic symptom. Deglutition is not unfrequently difficult, seemingly from insufficiency of the nervous influence; sometimes it is impossible to introduce anything into the stomach, even the thought of swallowing causing spasms, as in hydrophobia. The toes and thumbs, or either of these members alone, may be curved inwards. Opisthotonos is a symptom of the later stages of the disease.

In connection with spasm, may be mentioned the state of restless-

ness into which the patient usually falls, even upon the first day of the attack. He tosses from side to side of the bed, unable to find rest; he rises and turns over, then returns to his former position, fatiguing himself and his attendants; and even where the weakness is so extreme as to preclude voluntary motion, he will call upon his attendants to turn him, which requires great care, on account of the excessive tenderness. This restlessness is a very constant symptom and a very marked one.

Petechiæ are not always present; when present, they vary from minute spots to blotches an inch or more in diameter, the most usual size being from one to three or four lines. They are of every shade, from light red to livid purple. They are few, or so many as to give rise to a uniform reddish tint, similar to that of scarlet fever. They are usually even with the surface, and when the finger is passed over them cause no sensation of roughness. Occasionally, however, they have been found slightly elevated. They do not disappear under pressure, except sometimes the very lightest colored. They were first observed, in fifteen cases on the first day; in thirteen, on the second day; in four, on the third; in one, on the fourth; in one, on the fifth; in one, on the sixth; in one, on the eighth; in one, on the tenth; and in one, on the eleventh. They occurred most frequently on the limbs and body; on the legs more than on the arms; about as often on the chest as the abdomen; frequently on the face; more rarely on the shoulders, neck and back; in one or two cases there were ecchymoses under the conjunctivæ, similar to petechiæ. Usually, they were round and regular in form, though occasionally irregular, pointed or star-shaped. After their first appearance, they sometimes increase in size with the progress of the disease, and sometimes remain without change until they gradually fade away and disappear. They are mentioned in fifty-two out of one hundred and fifty cases where particulars more or less full are given with regard to the symptoms.

Another eruption, herpes labialis, is not unfrequent about the mouth.

Purpuric eruptions and vibices are also met with, though more rarely.

The face or the surface of the body, instead of being covered with petechiæ, may be of a uniform dusky, livid hue.

The pulse cannot be employed in the usual way as a guide in deciding in regard to the severity of the attack. In the same case it may vary exceedingly, and in a few hours rise or fall a number of pulsations, as many as forty or fifty. In three or four cases an irregularity is mentioned, which "consisted in a frequency of about two and a half, then falling off to one pulsation in the second, and this alternating from four to six times during" the minute. In the majority of cases the pulse is rapid, over 90. It is usually full, but weak and compressible, almost never is it strong and hard. Occa-

sionally it cannot be distinguished from a healthy pulse; sometimes, as in the second case related above, the heart continues to act even after respiration has ceased.

The *respiration* is usually hurried, often it is difficult, and towards the fatal termination it becomes stertorous.

The *nausea* and *vomiting* seem to depend on the disease of the encephalon. The vomitus consists of the ingesta, or of bile and mucus.

The *tongue* is very variable in its appearance; it may be moist and natural, but is more frequently dry and more or less coated with a whitish or dark colored fur. In some cases it closely resembles the tongue of typhoid fever.

The *bowels* are usually sluggish, and it is necessary to exhibit cathartics. When obtained the stool is not unfrequently dark colored and very offensive. Sometimes it is almost impossible to obtain a movement, and the patient does not seem to suffer from want of it. When there is diarrhoea at the commencement of the attack it can usually be easily controlled; but when it sets in during the later stages it is more difficult to arrest, and often points to a fatal termination.

Occasionally *swellings* and *abscesses* occur during the course of the disease in various parts of the body, or the swelling continues a few days and then subsides without suppuration. Abscesses also occur during convalescence.

Epistaxis, hæmorrhage from the bowels, and other signs of a hæmorrhagic tendency occurred in four or five cases. In three or four women the catamenia appeared too early by a week or ten days.

In three instances pregnant women were the subjects of the attack; one aborted at about the sixth month, the other two carried their children to full term, though threatened with abortion. Both the children were sickly and died; one in the fourth month of diarrhoea, and the other in the tenth month of "pulmonary catarrh."

Not unfrequently after the disease has continued several days hypostatic congestion of the lungs is developed; sometimes it is attended with cough and the expectoration of bloody sputa.

In one or two cases great weight and oppression in the epigastrium were experienced, seemingly like that described by Dr. Miner in his account of the epidemic of 1825.

One symptom which occurs in almost every case, and which is quite characteristic of the disease, has not yet been mentioned. It is debility, which is excessive, and is found to exist in every variety of the disease.

There is some danger of relapse: imprudence in diet or exposure; any cause which produces much mental agitation, may give rise to this accident; care on all these points is therefore necessary during convalescence.

I.—In the second or pneumonic form there is less disturbance of

the cerebral functions; delirium is wanting, though headache may exist. With great debility are found the symptoms, rational and physical, of pneumonia. Petechiæ occur. Opisthotonos is not unusually met with. Only two cases of this form occurred among those recorded; both recovered, both exhibited petechiæ. In one case with the cerebral symptoms pneumonia occurred on the fourteenth or fifteenth day, caused by accidental exposure. In the *Boston Medical and Surgical Journal*, vol. 72, p. 372, is the following in a letter by Dr. J. W. Goodell, upon this disease. "We have had some twenty cases of pneumonia since Jan. 1st, and most of them strongly typhoid; in fact, such a lot of black tongues I have never seen in real typhoid fever." May not these cases have belonged to this second variety?

III.—The third variety is marked by an absence of all the peculiar local symptoms; having the debility, the petechiæ and complications. Two cases occurred, one with suppuration of both parotids, the other with great swelling and excessive tenderness of the right knee; both were without cerebral symptoms; both recovered.

Though these last two varieties have been so seldom observed during late years, they were more frequent during former epidemics, especially the pneumonic form; formerly also sore throat was frequently a symptom of the third variety.

[To be continued.]

COLLODION.*

[Read before the Norfolk (Mass.) District Medical Society, July 11, 1866, by JOHN P. MAYNARD, M.D., of Dedham.]

MY excuse for trespassing a few moments on the short time allotted to our meeting, is in the repeated solicitation that I should condense in a brief paper some remarks upon collodion.

I cannot hope to afford any fresh information on this subject, as its novelty has long since passed away—it being now nearly twenty years since I first introduced it to the profession as a new material for dressing wounds. I was induced to apply it for this purpose from observing the effect of a specimen of gun cotton dissolved in ether, according to the formula of Prof. Schönbein, of Europe, with which I was experimenting to obtain a varnish which would prove impervious to water. Finding it possessed, when applied to the skin, considerable tenacity, it was a very natural inference that it might be made available in surgery; especially if by some variation in Schönbein's formula a still more tenacious solution could be attained, for many specimens of gun cotton then made were but partially soluble. After many experiments I succeeded in obtaining a material adapted to the desired purpose, known by the name of collodion.

* From *Κολλώδες*, glaucy; a name given by Dr. A. A. Gould, of Boston.

This was distributed among surgeons, who confirmed my favorable opinion and experience of its advantages for surgical purposes. At the request of the late Dr. John D. Fisher, of Boston, a paper was furnished him on the subject, which was read before the Boston Society for Medical Improvement. This was followed by a series of articles published in the *Boston Medical and Surgical Journal*, giving a more detailed statement of some of the more important cases in which I had used it during the year 1847. These were the first cases, as far as I am aware, in which collodion was used for surgical purposes.

Since that period it has come into general use, both in this country and Europe. Erasmus Wilson, of England, to whom I forwarded specimens, with an account of my experience in its use, soon after published his commendations of its utility in diseases of the skin, wherein he expresses the opinion that "collodion is likely to occupy an important place among the adjuvantia of surgical practice."* However beneficial it may be in these diseases, my own experience leads me to the belief that it is best adapted to the following purposes.

Incised Wounds.—In those of a limited extent, the immediate application of collodion to the edges of the lips of the wound after being brought into perfect apposition. In those of larger extent by the mediate application of strips of cotton cloth moistened with the collodion. No sutures can possibly keep the edges of an extensive wound in such perfect and permanent union as the collodion thus applied. I have thus used it advantageously in wounds from an inch in length to those of thigh amputations; and almost universally secure union by the first intention.

Harelip.—Owing to the excessive tenacity with which it adheres to the skin I have found it of great service in the operation for harelip, by attaching strips of cloth moistened with it across the lip to each side of the cheeks, rendering all liability to separation of the wound impossible.

Next comes its application to *burns*; in these cases, painted over the surface of the inflamed skin it seems to afford instant relief, effectually preventing the admission of air, supplying an artificial cuticle beneath which the process of reparation by nature is undisturbed.

Among many other purposes to which I have applied it, may be mentioned the removal of *small erectile tumors*, such as naevi materni. I have frequently succeeded in removing these unsightly disfigurements in children where an operation was undesirable. Its repeated application every few days will be found to restore these patches of engorged bloodvessels to their natural color, by its permanent contraction of their contents. I take pleasure in stating that Dr. Brainard, of Illinois, has met with similar success, an account of which was published in the *North Western Journal* some years ago.

* For a more minute account of his application of it, reference may be made to the *London Lancet*, Nov. 18, 1848.

In *bed sores*, so frequently resulting from long confinement in the horizontal position, I have found collodion to be of great efficacy in protecting the exposed prominences of the emaciated body from painful pressure and preventing the integuments from excoriation. The first case in which I thus used it was that of a young female in the last stages of phthisis, long compelled to remain in a recumbent position, where portions of the hip-bone gave evidence of the result of constant pressure. The collodion was painted over the sensitive skin until a thick coating was produced, which entirely removed all pain and prevented any subsequent tenderness.

By this means the surgeon may at once relieve the *pain in the heel* so common from pressure, in fractures of the leg; in *hernia*, from too strong pressure of a truss. An *uncurism* may be thus coated before its cure is attempted by long-continued pressure. In the tenderness of recently healed *stumps*, where artificial limbs are worn, its application has been found very useful.

Another purpose to which it may be applied is to prevent the pitting of *smallpox*. In this disease I have coated the entire face with it, occasionally renewing it if needed, with the satisfaction of finding, after recovery, when the collodion peeled off, the patient's face perfectly smooth and free from any scar.

In *erysipelas*, I have found it useful in allaying the burning sensation which accompanies the disease—but have not found that it would arrest the progress of the disease or limit the duration of the eruption, which will ordinarily disappear in a week or ten days without treatment. I allude to this, as some physicians have lauded its effects too highly, inferring that they had shortened the disease by its application because the disease disappeared a week after. Surely their cases were instances of coincidence, rather than sequence.

One more surgical use that I have availed myself of, is as an *immovable bandage* in fractures, instead of the ordinary starch bandage—its advantage being in the quickness of its conversion into a firm support for the fractured limb, owing to the rapidity of the evaporation of the ether holding the gum in solution.

The above-mentioned surgical purposes are those to which I have deemed collodion best adapted. What further applications may be made of this material, time only can show. It has already entered the domain of art, and by its aid the photographer furnishes us with those artistic productions that rival the engraver's skill. First came the thin layer of collodion, poured over the surface of glass, called the *ambrotype*—a vast improvement over the ghastly looking *daguerreotype*. Now comes the still more beautiful photograph on collodionated paper. Thus has chemistry aided art, as well as surgery, by its curious and peculiar properties, which may yet be adapted to some object of more importance than any yet developed.

Before concluding this imperfect sketch of the origin, nature and uses of collodion, I cannot avoid alluding to a highly improper and

absurd application made of this substance, by coating pills with it to conceal their taste. M. Sourresseau and Mr. Durden have thus used it, either ignorant or forgetful of the fact that it is insoluble in the gastric juice or the intestinal secretions. They might have swallowed with impunity their pills thus coated, and by a careful after search have found them in as good condition, as regards their solvency, as when they were first sent on their fruitless journey. If any have administered pills thus coated and rendered more insoluble than shot, it will be needless to add that any improvement in health which may have followed must be regarded as additional instances of the error of attributing recovery to treatment rather than to nature.

Before closing, it may be pertinent to mention the formula best adapted for surgical purposes. As before stated, in my earliest applications of this substance I used a solution of gun cotton, prepared according to the method of Schönbein. Larger experience and various experiments convinced me a material better adapted to fulfil the wants of surgery could be obtained by departing from the object of obtaining a solely explosive compound, and substituting one that would be completely soluble. I avail myself of this occasion to repudiate the formula purporting to be mine, published in the U. S. Dispensatory, by Wood & Bache, which is unauthorized and incorrect. The true formula, which I have always communicated verbally to any in the profession who have desired it, is the following:

Take two parts of sulph. acid, sp. gr. 1.850, and one part nitric acid, sp. gr. 1.450. Mix them—allow the temperature to fall to about 100 Fahrenheit. Add to this, raw cotton, to point of saturation. Let it soak about one to two hours. Pour off the acids. Wash the cotton till litmus paper shows all acidity removed. Dry thoroughly. The cotton will now be found to be converted into a gum, completely soluble in ether of about .750 sp. gr., or in pure ether 3 parts and alcohol 95 per cent. 1 part. About 2 ounces of cotton thus prepared will make about one pint of collodion of proper consistency for surgical purposes. For photographic objects, a less amount will be sufficient. The conditions for success by this formula are simply precision in the details and careful manipulation, which a little experience will perfect.

Reports of Medical Societies.

MAINE MEDICAL ASSOCIATION.

AMIDST the excitement attendant upon the fearful calamity which visited our city on the 4th inst., we have failed to report for your valuable JOURNAL the doings of the Maine Medical Association, which held its session in Portland commencing June 19th, and continuing three days.

This session was one of unusual interest, both from the large at-

tendance and the number and variety of interesting subjects before it. We all felt regrets at the close, inasmuch as we thought we saw more manifestly the "march of improvement" in medical science, as demonstrated by the numerous papers presented bearing upon subjects heretofore considered "debatable ground." The general style of those papers was not of a theoretical character, but clear and practical, establishing conclusively many points heretofore considered doubtful or decried as chimerical and dangerous doctrines.

The morning of the first day's session was spent principally in matters of business: after an appropriate and touching address from that veteran in medicine, Prof. Nourse, of Bath, President of the Association. The afternoon session was really the beginning of the interesting portion of the exercises. Many able and valuable reports and papers were read, and referred to the Committee on Publication, some of which I must refer to particularly.

First, came Prof. Nourse's report upon Compulsory Vaccination, which he had laid before the Legislature, and this body in its profound wisdom had seen fit to lay it upon the table or refer it to the next session.

Drs. Swazey and Foster, from the Committee on Epidemics of the State, each presented a report—the former setting forth the causes producing, and the latter giving the principal epidemics of the year past. The list shows but few of much violence of character.

Dr. Dana presented a very able and interesting paper upon Abortion and the induction of premature labor. He analyzed and discussed the subject in all its bearings, contending that under no circumstances (except to save the life of the mother) is the induction of premature labor justifiable, even from the impregnation of the ovum. Believing, as he did, that life existed from impregnation, it is no less the crime of murder than if committed upon the child after birth. Accompanying the report, several resolutions were presented, embracing the spirit of the views advanced by the writer, which, together with the report, were referred to the Committee on Publication.

Dr. Le Prohon, by leave, read a paper upon the same subject, differing from Dr. Dana in this respect: viz., that admitting, as he did, the views advanced by Dr. Dana, that "the fetus in utero is as much a living being and endowed with all the attributes of such as the mother herself," under no circumstances would the physician be justified in taking the life of the child, even to save the life of the mother—that it would be murder in any case, and consequently criminal. Much discussion followed these papers—the majority being in favor of the views advanced by Dr. Dana. (In justice to Dr. Le Prohon, it is but fair to say that the above are his religious rather than his professional views—he being a Romanist.) Not having a copy of the resolutions, I am unable to present them at this time. It was voted to request the daily journals of the State to publish them, together with an additional one censuring the press for publishing advertisements of medicines which are well known to be used for procuring abortion.

The evening session was devoted to the annual address, from Dr. Swazey—subject, "The Medical Profession." It was a plain, practical review of the duties, trials and sacrifices of the profession, and an earnest appeal to its members to observe an honorable relation to each other. The various systems of quackery received a sharp dissection.

The morning of the second day was spent in the election of officers and the reading of several papers, among which we would notice that of Dr. Fuller, of Bath, on fractures of the skull and their treatment. The treatment, he contended, should be by early trephining. Dr. Robinson made a verbal report on materia medica, reiterating the views set forth in his report of last year upon the propriety of using opium in diseases of the brain.

The following is the list of officers for the ensuing year: *President*, Dr. S. H. Tewksbury, of Portland; *1st Vice President*, Dr. A. P. Snow, of Winthrop; *2d Vice President*, Dr. Theodore Estabrook, of Rockland; *Recording Secretary*, Dr. E. H. Vose, of Gorham; *Corresponding Secretary*, Dr. A. H. Burbank, of Yarmouth; *Treasurer*, Dr. T. A. Foster, of Portland; *Orator*, Dr. G. H. Chadwick, of Portland.

Dr. Tewksbury, from the Committee on Conservative Surgery, exhibited several cases of excision of the knees and other joints, where the operation was perfectly successful, the patients having good limbs.

Dr. Sanger, from the same committee, made a report of numerous cases of excisions of joints, in army practice, showing a large percentage of successful ones over amputations, even so far as life is concerned.

Dr. Gordon, of Portland, from the same committee, read a paper on the "treatment of suppurative inflammation of joints, with a view to prevent ankylosis," substantiating his theory by successful cases from his notes.

The committee on necrology reported the deaths of several members—Drs. Bradbury, Rich and Thomas. Resolutions of sympathy and respect were passed.

In the afternoon Dr. S. Tewksbury read a paper on the application of caustics to the uterine cavity. This paper was one of peculiar interest, inasmuch as it was treading upon comparatively new ground, and was entirely from facts in the Doctor's own experience and much in advance of any known authorities. While writers and teachers had been content with treating diseases of the os uteri and cervix by the application of such remedies, he, reasoning from the liability of the uterine cavity to similar diseases (to a greater extent, from obvious reasons), had found such diseases to exist and had applied the same treatment to the entire cavity. From an extensive experience of several years he had become satisfied that more extensive diseases existed in the cavity of the uterus than at the neck, and that no more harm resulted from the application of caustics, such as acid nitrate of mercury, nit. of silver, tinct. iodine, chromic acid, &c. &c., to the former, than the latter portion. In a report like this, I cannot do justice to the Doctor's paper. Suffice it to say, it was a thoroughly logical one, and was listened to with a great degree of interest, aside from eliciting some discussion.

Prof. H. R. Storer, of Boston, being present, spoke at some length on the subject, fully endorsing the views of Dr. Tewksbury. He also presented several instruments of his own invention, which seem to answer wants long felt in uterine surgery.

Dr. Cutler, of Boston, exhibited several forms of the laryngoscope, and gave some illustrations of its use in the diagnosis of diseases of the throat and nose.

Dr. Carleton, delegate from Connecticut, exhibited several instruments for atomizing medicinal substances, showing their application. Also the use of rhigolene for local anæsthesia, as adopted by Dr. Bigelow.

In the evening the members of the Association were elegantly entertained at the private residence of Dr. S. H. Tewksbury.

The third day was spent in business, and discussions upon the reports upon excisions and conservative surgery, in which many members participated. Dr. Garcelon, of Lewiston, addressed the convention upon the peat and peat bogs of Maine. Dr. Cummings read an interesting paper on pharmacy; Dr. Snow one on the spontaneous cure of ovarian dropsy; other cases in point were cited by different members.

Dr. Foster presented a report on the value of Borden's Extract of Beef. He believed it to be very valuable in all cases where animal broth could not be readily obtained.

After the usual resolutions of thanks, the Association adjourned to meet at the same place on the second Tuesday of June, 1867. G.

PORTLAND, July 24, 1866.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 9, 1866.

REPORT OF THE CHOLERA CONFERENCE AT CONSTANTINOPLE.

THROUGH the kindness of Dr. William E. Townsend, of this city, we have been allowed the opportunity of examining the printed report of the Cholera Commission which held its sessions in Constantinople during the early months of the present year. The document is, in our estimation, one of the most important on the subject of cholera which has ever been issued. It gives the results of the mature deliberations of the Conference, which was in session nearly two months. Recognizing the vast significance of the questions before them, and the importance of thorough and deliberate action, the whole Commission was sub-divided into six sub-committees, to which these questions were distributed for consideration. The report before us is the result of the joint labors of these sub-committees, brought together in a common report. It is a large pamphlet of eighty-three pages, and the various subjects discussed are distributed in thirty-three sections. Each of these sections is prefaced by a question, which is followed by a condensed *resumé* of all the most important facts in the history of cholera, bearing upon the point, with the arguments on both sides of the question. The whole is summed up in each instance with the conclusion of the Commission, printed emphatically in *Italics*. The vote on each question is also given. We have the impression that this pamphlet was printed for private circulation only, as we have seen no mention of it in the Journals, although the recommendation of the Conference with regard to quarantine has been published. The copy before us came through the hands of an influential friend in Paris, direct from the Secretary of the Conference, Dr. Fauvel. Under these circum-

stances we feel that we cannot offer our readers this week anything so valuable as an abstract of this report. We have translated the questions at the head of each section, with the answer of the Commission in each instance, and the vote upon it. The whole pamphlet is eminently interesting and valuable, and worth translating. The names of the members of the Commission are as follows: The Count de Lallemand, the Count de Noidans and Segovia, *diplomats*, and Drs. Bartoletti, Bykow, Bosi, Dickson, Fauvel, Goodeve, Gomez, Baron Hübsch, Lenz, Maccas, Millingen, Monlau, Mühlrig, Pélikan, Polak, Salem, Salvatori, Sawas, Sotto, I. Spadaro, and Van-Geuns.

FIRST GROUP OF QUESTIONS—THE ORIGIN AND GENESIS OF CHOLERA; THE ENDEMIC AND EPIDEMIC PREVALENCE OF THIS DISEASE IN INDIA.

I.—Whence did the cholera, called Asiatic, originally come? And in what countries does it exist in our day in an endemic form?

The Commission with one voice is able to answer without hesitation that the Asiatic cholera, which at different times has run over the whole world, has its origin in India, where it had its birth, and where it exists permanently as an endemic.

Adopted unanimously.

II.—Out of India, does the Asiatic cholera exist in our day in any part of the world in an endemic form?

The Commission considers as demonstrated that the Asiatic cholera, wherever it appears, is never spontaneously developed and has never been observed as an endemic (care must be taken to distinguish secondary foci, more or less tenacious in their character) in any of the countries which have been enumerated (Europe, &c.), and that it has always come from abroad. As for the countries in the neighborhood of India, while admitting it as probable that the cholera does not exist there as an endemic, the Commission does not feel itself authorized to come to any formal conclusion on the subject.

Adopted by all the members of the Commission, except MM. Polak, Sawas and Van Geuns.

III.—Is there any reason to fear that the cholera may acclimate itself in our countries?

The Commission, without rejecting the possibility of the fact, regards it as problematic.

Adopted unanimously.

IV.—Is there in the Hedjaz an original focus of cholera, permanent or periodic?

The Commission is of opinion that Asiatic cholera does not appear to have had in the Hedjaz its original focus, but it appears to have always been introduced there from abroad up to the present time.

Adopted unanimously, except by Mr. Goodeve.

V.—Are there in India certain localities which have the exclusive privilege of generating cholera, or which are more particularly favorable to its development? In other words, is cholera endemic in all parts of India, or only in certain regions which it is possible to circumscribe?

At this time the Commission can only answer that there are in India certain localities, comprised principally in the valley of the Ganges, where cholera is endemic, without being able to point out all of them, or to affirm that they have the exclusive privilege of giving birth to this disease.

Adopted unanimously.

VI.—Do we know the causes by the concurrence of which cholera originates spontaneously in India, as well as the circumstances which make it take on an epidemic character?

The Commission feels obliged to limit itself to answering that we know not the special conditions under the influence of which the cholera breaks out in India and reigns there in certain localities as an endemic.

Adopted unanimously.

VII.—What are the circumstances which concur in the development and the propagation of epidemics of cholera in India?

The Commission believes itself authorized in answering, that pilgrimages are in India the most powerful of all the causes which tend to develop and propagate cholera epidemics.

Adopted unanimously.

SECOND GROUP OF QUESTIONS—THE TRANSMISSIBILITY AND PROPAGATION OF CHOLERA.

VIII.—Is the transmissibility of cholera proved to-day by facts which do not admit of any other interpretation?

Do not all these facts demonstrate conclusively that cholera is propagated by man, and with a rapidity in proportion to the activity and rapidity of his own movements? The Commission does not hesitate to answer in the affirmative.

Adopted unanimously.

The Commission, with unanimity, concludes that the transmissibility of Asiatic cholera is an incontestable verity, proved by facts which do not admit of any other interpretation.

Adopted unanimously.

IX.—Are there conclusive facts which force us to admit that cholera can propagate itself at a distance by certain atmospheric conditions, by winds, or by any other change or modification of the surrounding medium?

The Commission answers that no fact has proved, up to the present time, that cholera can propagate itself at a distance by the atmosphere alone, whatever may be its condition; and that besides it is a law, without exception, that never has an epidemic of cholera extended from one point to another in a shorter time than was necessary for man to carry it.

Adopted unanimously.

X.—How is the importation of cholera effected, and what are the agents of its transmission?

It may be said, without more specific statement for the moment, that if all modes of conveyance from countries affected with cholera are not likely to propagate the disease, it is none the less prudent, at present, to consider all such means of conveyance as suspected. A more detailed examination will settle the question.

Adopted unanimously.

XI.—Under what conditions does man import the cholera?

Man affected with cholera is himself the principal propagating agent of this disease, and a single cholera patient may cause the development of an epidemic.

Adopted unanimously; and —

XII.—The Commission has been led to conclude that certain facts tend to prove that a single individual (with much greater reason many individuals) coming from a contaminated place, and suffering from diarrœa, is able to cause the development of a cholera epidemic; or, in other words, that the diarrhœa called premonitory is able to transmit cholera.

Adopted unanimously.

XIII.—What is the period of incubation?

In almost all cases the period of incubation, that is to say, the interval between the moment when the individual may have contracted the cholera poison and the commencement of the premonitory diarrhœa, or of confirmed cholera, does not go beyond a few days; all the facts cited of a longer incubation belong to the class where the contamination may have taken place after departure from the infected place.

Adopted unanimously.

XIV.—Can the cholera be imported and transmitted by living animals?

There is no known fact which proves that cholera has been imported by living animals; but it is reasonable, nevertheless, to consider them, in certain cases, as belonging to the class of objects called susceptible.

Adopted unanimously, except by MM. Bykow and Lenz.

XV.—Can cholera be imported and transmitted by linen, clothing, and in general by articles in common use?

Cholera can be transmitted by articles in common use coming from an infected place, and especially by those which have been used by cholera patients; and it also results from certain facts that the disease may be transported to a distance by these same articles when closely shut up from the outer air.

Adopted unanimously.

XVI.—Can cholera be imported and transmitted by merchandise?

The Commission, while admitting with unanimity the absence of proof of the agency of merchandise in the transmission of cholera, admits (by a majority of 16 votes to 6) the possibility of the fact under certain conditions.

The negative votes were those of MM. Bykow, Goodeve, Lenz, Pélikan, Polak and Van Geuns.

In consequence, until more fully informed, the Commission believes that it will be wise to consider as suspected, at least under particular and determined conditions, everything coming (*toute provenance*) from a cholera district.

Adopted unanimously, except by MM. Goodeve, Pélikan and Polak, who declined voting.

XVII.—Can the bodies of patients who have died of cholera import and transmit the cholera?

Although it is not proved by conclusive facts that the bodies of patients dying with cholera can transmit the disease, it is prudent to consider them as dangerous.

Adopted unanimously, except by M. Sawas, who declined voting.

ON THE INFLUENCE OF MEANS OF COMMUNICATION.

XVIII.—What influence do the various modes of communication, whether by land or sea, have upon the propagation of cholera?

The Commission answers, that maritime communications are by their nature the most dangerous; that it is they which propagate most surely cholera at a distance, and that next to them comes communication by railroad, which in a very short time may carry the disease to a great distance.

Adopted unanimously.

XIX.—What is the influence of deserts upon the propagation of cholera?

The Commission, resting upon facts established by experience, concludes that great deserts are a most effectual barrier to the propagation of cholera, and it believes that it is without example for this disease to be imported into Egypt or Syria, across the desert, by caravans from Mecca.

Adopted by all the members of the Commission except MM. Monlau, Pélikan, Polak and Van Geuns, who declined voting.

THE INFLUENCE OF CROWDING.

XX.—What is the influence of crowds upon the intensity of epidemics of cholera, as well as upon the propagation of the disease? and under what conditions does it exercise its influence.

All crowding together of human beings, among whom cholera has been introduced, is a favorable condition for the rapid spread of the disease—and, if this crowding exists under bad hygienic conditions, for the violence of the epidemic among them.

That in this case the rapidity of the extension of the disease is in proportion to the degree of crowding, while the violence of the epidemic is, other things being equal, so much the greater according as individuals have been little exposed to the choleraic influence or not at all; that is to say, in other words, individuals who have already been exposed to the influence of a cholera atmosphere enjoy a sort of relative and temporary immunity which counterbalances the bad effects of crowding.

Finally, in the case of a dense crowd, the more rapid its separation, so much the more rapid is the cessation of the epidemic, at least if new arrivals of unaffected persons do not furnish new aliment for the disease.

Adopted unanimously.

XXI.—What is the intensity and what the tenacity of cholera epidemics on shipboard?

The Commission replies that the intensity of cholera on board ships crowded with men is, in general, proportionate to the crowding, and is so much the more violent, other things being equal, if the passengers have not resided in the focus of cholera from which they started; that on crowded ships the spread of cholera epidemics is ordinarily rapid; finally, the Commission adds that the danger of importation by ships, and that of giving rise to a grave epidemic, are not entirely subordinate to the intensity, nor even to the existence of choleraic symptoms appearing during the voyage.

Adopted unanimously, except by M. Monlau, who declined voting.

XXII.—What influence does the accumulation in lazarettos of individuals coming from a cholera district exercise upon the development of cholera among the people at quarantine and in the neighborhood?

The Commission concludes that the crowding together of people coming from a place where cholera reigns in a lazaretto, has not the effect of producing, among the people at quarantine, a great extension of the disease; but that such a gathering is nevertheless very dangerous for the neighborhood, as it is calculated to favor the propagation of cholera.

Adopted unanimously, except by M. Monlau.

XXIII.—What influence do great collections of men, in armies, fairs, pilgrimages, exercise upon the development and propagation of epidemics of cholera?

The Commission concludes that great gatherings of men (armies, fairs, pilgrimages) are one of the most certain means for the propagation of cholera; that they constitute the great epidemic foci which, whether they march after the manner of an army, or whether they are scattered, as at fairs and in pilgrimages, import the disease into the country which they traverse; that these gatherings, after having been exposed, usually in a rapid manner, to the influence of cholera, become much less susceptible to its power, and that it disappears very speedily, unless newly arrived persons take the disease.

Adopted unanimously.

XXIV.—What is the influence of dissemination upon the intensity and development of cholera epidemics?

The Commission concludes that the breaking up of a collection of people, at an opportune time, may render less violent an epidemic of cholera and even arrest its extension; but that this scattering, on the other hand, gives rise to great danger of propagating it, if it take place in the midst of a region as yet unaffected.

Adopted unanimously.

XXV.—What part belongs to the pilgrimage to Mecca in the cholera epidemics of our day?

The part of the pilgrimage to Mecca, as an agent in propagating cholera as regards the neighboring countries of Europe (the only one with regard to which we have positive information) has been the introduction of this disease into Egypt twice, with an interval of thirty-four years, during the hot season.

Adopted unanimously, except by M. Polak, who declined voting.

THE INFLUENCE OF HYGIENIC CONDITIONS.

XXVI.—What is the influence upon the violence of cholera epidemics exerted by hygienic and other conditions of locality; in other words, what are the assisting causes of cholera.

The Commission recognizes that the hygienic and other conditions which in general predispose a population to contract cholera, and consequently favor the intensity of epidemics, are: misery, with all its consequences; overcrowding, particularly of persons in feeble health; the hot season; want of fresh air; the exhalations from a porous soil impregnated with organic matters, above all with the dejections from cholera patients.

In addition, the Commission think that, as it appears demonstrated by experience that the discharges of cholera patients contain the generative principle of cholera, it is right to admit that drains, pri-

vies, and the contaminated waters of towns may become the agents for the propagation of this disease.

The Commission adds, that it seems to result from certain facts that the soil of a locality, once impregnated with cholera detritus, is able to retain for a considerable length of time the property of disengaging the principle of the disease and of thus keeping up an epidemic, or even of regenerating it after it has become extinct.

Adopted unanimously, except by M. Pélikan.

IMMUNITY FROM CHOLERA.

XXVII.—How is immunity from cholera to be interpreted?

The immunity which certain localities enjoy, that is to say, the resistance, permanent or temporary, general or partial, opposed by these localities to the development of cholera within their limits, is a fact which does not exclude transmissibility, but which indicates that certain local conditions, not yet entirely determined, are an obstacle to the development of the disease.

The same immunity, more or less complete and more or less durable, which the majority of persons in the midst of an infected district enjoy, an immunity which attests the individual resistance to the toxic principle, is a circumstance to which we should attach the highest importance.

In point of view of epidemic development, it is the corrective of transmissibility, and viewed with regard to prophylaxis, it sets in operation proper means to arrest the ravages of the disease.

Adopted unanimously, except by MM. Monlau and Pélikan, who declined voting.

DEDUCTIONS RELATIVE TO THE GENERATIVE PRINCIPLE OF CHOLERA.

XXVIII.—From the facts above established, and which relate to the genesis, the propagation and the transmissibility of cholera, can we draw any precise conclusion with regard to the generative principle of the disease, or at least with regard to the media which serve as its vehicles, or receptacles; with regard to the conditions of its penetration into the organism, the ways by which it passes out, the duration of its morbid activity, in a word, with regard to all its attributes, a knowledge of which is important to guard against it?

In the actual state of science, we can only frame hypotheses as to the generative principle of cholera; we know only that it originates in certain countries of India, and that it dwells there permanently; that this principle is reproduced in man and accompanies him in his journeyings; that it may also be propagated at a distance, from place to place, by successive regenerations, without ever being reproduced spontaneously outside of man.

Adopted unanimously, except by M. Goodeve, who declined voting.

XXIX.—What are the vehicles of the generative principle of cholera?

Under the name of vehicles, the Commission intends to speak merely of the agents by means of which the morbid principle penetrates the organism. To this question the facts reply that the air is the principal vehicle of the cholera principle. . . . The action of the cholera miasm is so much the more sure as it operates in a confined atmosphere and near the focus of emission. . . . It seems that it is with cholera miasm as it is with the miasm of typhus,

which rapidly loses its power in the open air at a short distance from its starting point.

XXX.—To what distance from a focus of disease can the principle of cholera be transported by the atmosphere?

The surrounding atmosphere is the principal vehicle of the generative agent of cholera; but the transmission of the disease by the atmosphere, in an immense majority of cases, is limited to a space very near to the focus of emission. As for the facts cited of transportation by the atmosphere to the distance of one or more miles, they are not sufficiently conclusive.

Adopted unanimously, except by M. Goodeve, who declined voting.

XXXI.—Independent of the air, what other vehicles are there of the cholera principle?

Water and certain ingesta may also serve as vehicles for the introduction into the organism of the generative principle of cholera.

This granted, it follows, so to speak, necessarily, that the passages by which the toxic agent penetrates into the economy are principally the respiratory passages and very probably also the digestive canals. As for its penetration by the skin, nothing tends to prove it.

Adopted unanimously.

XXXII.—What are the principal receptacles of the cholera principle?

The matter of the cholera dejections being incontestably the principal receptacle of the morbid agent, it follows that everything which is contaminated by the discharges becomes also a receptacle from which the generative principle of cholera may be disengaged, under the influence of favorable conditions; it follows, also, that the origin of the cholera germ takes place very probably in the digestive canal, to the exclusion, perhaps, of all other parts of the system.

Adopted unanimously.

XXXIII.—What is the duration of the morbid activity of the generative principle of cholera?

It results from the study of facts, that in the open air the generative principle of cholera loses rapidly its morbid activity, and that this is the rule; but that under certain particular conditions of confinement, this activity may be preserved for an unlimited period.

Adopted unanimously.

Finally, the Commission adopts the following formula:—

Observation shows that the duration of the choleraic diarrhœa, called premonitory—which must not be confounded with all the diarrhœas which exist during the time of cholera—does not extend beyond a few days.

Facts cited as exceptional do not prove that the cases of diarrhœa prolonged beyond that period belong to cholera, and are susceptible of transmitting the disease, when the individual affected has been withdrawn from all cause of contamination.

Adopted by fourteen votes against four, viz., MM. Gomez, Millingen, Mühlgen and Salvatori; M. Monlau declined voting.

Here end the labors of the Commission, with regard to the origin, the endemic condition, the transmissibility and the propagation of cholera, and the historic sketch of the march of the epidemic of 1865,

made by a sub-committee of which Dr. Bartoletti was the Secretary, before being presented separately to the conference.

With regard to the different questions placed upon the programme, it is to be said, that by limiting themselves to drawing from facts the consequences which reasonably flow from them, the Commission thinks it has established sure foundations which will enable the conference to pronounce understandingly upon all questions relating to prophylaxia.

Signed by A. FAUVEL,
Secretary.

The present report, having been discussed and adopted, chapter by chapter, was approved as a whole by all the members of the Commission.

Constantinople, May 21st, 1866.

Signed by all the members of the Commission.

The above abstract gives, in a condensed form, the substance of a report which confirms in the strongest manner all that this and other journals in this country and abroad have maintained with regard to the communicability of cholera. It is not strange, therefore, that, as is stated by the French press, the Conference adopted the following propositions, presented by the French delegates, as we learn from the *Medico-Chirurgical Review* :—

“To break off all communication—the moment cholera appeared among the pilgrims—between the Arab ports and Egyptian coast, leaving the land route followed by the caravan open for the hadjis for their return to Egypt. In other words, the pilgrims would be obliged to perform quarantine, either in the Hedjaz till the epidemic ceased, or in the desert in the caravan route.”

The City Physician's Letter to the Consulting Physicians of Boston.—It will be remembered that a few weeks since the Consulting Physicians of Boston addressed a communication to the city authorities, on the subject of cholera, in which they reflected somewhat severely upon the change of opinion on the part of the City Physician, with regard to the question of its communicability, and to the measures necessary to be adopted for the protection of the community from its invasion. Naturally enough Dr. Read has felt much aggrieved by what seemed to many an uncalled for attack by these gentlemen, and in consequence he has just published a pamphlet in reply to their strictures and theories, in which he arrays an army of facts, the logic of which seems to us incontrovertible, in defence of his opinions. It is a sound, comprehensive argument for the communicability of cholera, well worthy of the careful consideration of every physician; and a valuable contribution to the current literature of the subject.

Simple Device for giving a Vapor Bath.—Messrs. Editors,—I send herewith a rough sketch of a little device of mine which I am using in the treatment of severe chills and other cases when a vapor bath is admissible.

I have found it to answer the purpose admirably, and I believe it will also be a valuable adjunct in the treatment of cholera.

The apparatus is made of tin, the diameter is eight inches, depth (not including cover), four inches.

In using it, I place a pound or so of unslacked lime in the dish, pour a pint of hot water on the lime and place the apparatus between the sheets next to the patient, and the effect in every case, in which I have thus far tried it, has been very satisfactory.

If you think the above worthy a place in the *Journal*, please insert and oblige,

Yours truly,

J. O. HARRIS.

Ottawa, Ill.

Dr. Harris's apparatus is a cylindrical tin vessel, eight inches in diameter by four inches in depth, provided with a handle, and a flat cover attached by a hinge, and perforated with numerous holes. Arched strips of tin are fastened to the cover, which passing over from side to side serve as a bridge to keep the bed-clothes from closing the openings. The device seems to us an admirable one, and we have no doubt it will answer an excellent purpose, employed as Dr. Harris suggests.

WE have already referred to the Report of a Committee of the Chicago Academy of Sciences on *Trichinæ*. The following passages from that report, as published in the *Chicago Medical Examiner*, are of much interest:—

“By these tables it will be perceived that we have found *trichinæ* in the muscles of 28 hogs out of the 1,394 examined. We may therefore conclude that in the hogs brought to Chicago 1 in 50 is affected with trichiniasis in a greater or less degree. We must confess our surprise at arriving at this result, which indicates with little doubt the startling fact that trichiniasis in pork is even more common in this country than in Germany, where it has caused so much suffering and death. For instance, in the city of Brunswick, where a most careful inspection of 19,747 hogs was made in the years 1864–5, only two were found to contain *trichinæ* in their muscles, the proportion being 1-10,000 against 1-50, as before stated in our country. The comparative immunity from the disease which our own people have enjoyed, undoubtedly results from the habit of cooking meat before eating it, while in Germany it is eaten raw by the poorer classes on account of the high price of fuel.

“It will be also observed by consulting the tables that the specimens examined show great variation in the number of worms infesting them. We have given, indeed, only an approximation to the number existing in a cubic inch in each specimen of muscle, but this approximation is sufficiently near the truth for our present purposes. Our method has been to count the *trichinæ* occurring in several different portions of muscle, each a cubic tenth of an inch in size, and to multiply the average number by 1,000, to find the number to a cubic inch. By this method we find that only three of our specimens (Nos. 10, 11 and 23) contain over 10,000 to the cubic inch and are therefore as densely infested with the worm as the pork which has occasioned the disasters in Germany. The remaining 25 are infested in a comparatively slight degree, viz.:—from 48 to 6,000 to the cubic inch. The specimen most thickly infested contains 18,000 to the cubic inch, and we have calculated that a person eating an ordinary meal of this pork in a raw state would speedily become a victim to the ravages of not less than 1,000,000 of young *trichinæ*. In certain cases of death

from trichiniasis, the number found in the muscles of man has been 2,000,000."

With regard to insuring safety in the consumption of pork, the Committee say,—

"But we have in our power much more simple means of insuring safety in the consumption of pork. It is simply necessary to cook it thoroughly so that every portion of the meat shall have experienced a temperature of at least 160 degrees Fahrenheit. We cannot insist too strongly on this point. Again by properly salting and smoking the meat for at least ten days, the trichinae should they exist, will certainly be killed. Simple desiccation of the meat, if continued for a period of sufficient length, will also kill them. They will never be found alive in old hams, for instance. On the other hand, mere pickling appears to have very little effect upon the worms."

Local Anæsthesia in a case of Cæsarian Section.—The *Medical Times and Gazette* publishes a case of Cæsarian section successfully performed by Dr. R. Greenhalgh, in which complete anæsthesia was produced by Dr. B. W. Richardson, by means of a large double spray-producer, set in a double-necked eight ounce bottle for holding the ether, and worked by two hand-bellows. In forty-five seconds the insensibility was perfect. No pain was experienced from the incisions through the abdominal walls or the uterine, although the patient experienced the usual suffering from uterine contraction after the removal of the child. The wound healed by first intention, and the woman recovered rapidly.

THE Government authorities at Cologne have issued a circular, cautioning the public against variegated slate pencils. Schweinfurt green, which contains arsenic, is used for the green, chromate of lead for the yellow, and red lead for the red varieties. The circular points out the danger of this practice, especially to children, by whom slate pencils are chiefly used.—*Chemist and Druggist*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 4th, 1866.

DEATHS.

	Males.	Females.	Total
Deaths during the week - - - - -	62	65	127
Ave. mortality of corresponding weeks for ten years, 1855—1865	51.9	55.7	107.6
Average corrected to increased population - - - - -	00	00	118.40
Death of persons above 90 - - - - -	0	1	1

MARRIED.—At Brattleboro', Vt., 26th ult., Hon. Alfred Hitchcock, M.D., of Fitchburg, Mass., to Miss Ella M. Clark.

DEATHS IN BOSTON for the week ending Saturday noon, Aug. 4th, 127. Males, 62—Females, 65. Accident, 7—anaemia, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—cancer, 4—cholera infantum, 29—cholera morbus, 3—consumption, 13—convulsions, 5—debility, 1—diarrhoea, 5—dropsy, 1—dropsy of the brain, 2—drowned, 1—dysentery, 9—epilepsy, 1—typhoid fever, 4—gangrene, 1—gastritis, 2—disease of the heart, 5—insanity, 1—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 3—old age, 3—premature birth, 5—scrofula, 1—suicide, 1—syphilis, 1—teething, 1—tumor, 2—unknown, 1—whooping cough, 2.

Under 5 years of age, 59—between 5 and 20 years, 9—between 20 and 40 years, 25—between 40 and 60 years, 20—above 60 years, 14. Born in the United States, 86—Ireland, 30—other places, 11.

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No. 3.

TWO CASES OF RUPTURED PERINÆUM SUCCESSFULLY TREATED
BY A NEW METHOD.

[Read before the Boston Society for Medical Improvement, June 25th, 1866, and communicated for the
Boston Medical and Surgical Journal.]

By SAMUEL CABOT, M.D.

HAVING partially failed in the treatment of a case of ruptured perinæum by Mr. Baker Brown's method, through the ulceration of the deep stitch at the margin of the anus, and feeling that that method was defective because it was necessary to carry the stitch at the margin of the anus so high up as to draw the deep parts so much forward as to produce a folding or puckering of the two surfaces, and thus to prevent a perfect apposition and rapid union, which is so very desirable, particularly in this operation—I was led to employ the method which I put in practice in the two cases about to be reported, and, so far as the new method is concerned, with perfect success in both cases.

CASE I.—Nov. 1st, 1864. Eliza E. F., æt. 22. Rupture of perinæum of four months' duration. The patient has excellent health. At confinement, she was attended only by a midwife, who did not discover the injury till a week after. The labor lasted $8\frac{1}{4}$ hours, and was attended with great suffering. She recovered from it, however, in about the regular time. Some little time after stitches were put in by a physician, without any benefit. The rupture is quite extensive, extending through the sphincter ani. The surface is perfectly healed over. *R.* Olei ricini, \bar{z} i.

Nov. 3d.—This morning, an enema was given. The patient being placed in the position for lithotomy, which sufficiently separated the sides of the rupture and the labia, the integument was dissected from the sides and floor of the rupture, which extended upwards from the sphincter a little over three inches. Then, two long needles were passed through the sides of the rupture, just above the anus, opposite each other, the ends within the vagina being inserted into a cork, and the projecting ends tied so as to be brought within one fourth of an inch of each other; the fresh surfaces in their vicinity being thus brought into accurate apposition. Three double twisted

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sutures were passed deeply, about an inch apart, through the sides of the wound, and, being fastened to pieces of elastic bougie, drew its sides firmly together. Three superficial sutures were put in. The sphincter ani muscle was divided on each side of the coccyx. Not much bleeding. Compress and a T bandage. Beef-tea, gruel, &c. *R.* Smith & Melvin's liquid extract of opium, gtt. l. Later, *R.* Ext. opii liq., gtt. xxx. every four hours. Wound to be well syringed out, and urine to be drawn every four hours. Water bed.

Nov. 7th.—Considerable discharge of purulent matter. Wound gaping slightly above sphincter, at first deep stitch. Pulse 128. Dress frequently with *R.* Sol. potass. permanganat., 3 i.; aquæ, Oi. Mice, on lint.

8th.—Pulse 108. The last superficial suture removed.

9th.—Only needles remaining. Nearly the whole length of the wound has united firmly.

10th.—Gaping for half an inch at first deep stitch.

14th.—Ruptured space diminishing. Its surface touched with nitrate of silver.

23d.—Sphincter ani now apparently firmly united.

24th.—Omit opiate.

25th.—Enema this morning attended with immense success. On examination, no injury from evacuation was discovered.

Dec. 5th.—Opening is diminished by at least one half. Has perfect control over bowels.

8th.—Nitrate of silver is applied every third day. A common-sized stick of it barely passes into the opening.

24th.—About one fourth of an inch still open.

The patient's husband writes as follows, on Feb. 27th, 1865:—

"My wife's general health is quite good. As for the wound, it is about two thirds as large as when she left; it has not closed up any for the last five weeks. The soreness is entirely gone, and she does not experience any serious inconvenience from the small aperture that remains."

CASE II.—May 22d, 1866. Mrs. W., aged 37, had rupture of the perinæum seventeen years since, at the birth of her first child. Has borne two children since. She is a thin, sickly looking woman, has a tendency to chronic diarrhœa, and is much troubled with prolapsus uteri. The rupture extends through the sphincter ani, and she cannot control her motions.

The operation in this case was performed almost precisely as in the other, except that four needles were used instead of two, as in the first case. Two of these were common steel shawl pins, with black glass heads; the other two were common long darning needles. The shawl pins were drawn together till the heads met, with strong silk tied round them. The needles were shortened with cutting pliers, and the external ends were brought about as near together as

the pins had been, that is, to about a quarter of an inch from each other, and secured in that position by a piece of cork, into which the projecting ends were thrust.

The treatment was about the same as in the preceding case. The whole wound healed by first intention, excepting a very small surface within the vagina, which soon healed by granulation. The deep stitches were withdrawn on the third day, and the superficial ones on the next. The needles were withdrawn in about a week; not then on account of any ulceration in their track, but because the pressure of the heads of the pins, and of the cork placed over the external ends of the needles, had produced ulceration on the buttocks by pressure where they came in contact.

The cork within the vagina produced no trouble in either of these cases; and if a bit of stiff paper or something of the sort had been interposed between the heads of the pins and the cork, and the soft parts, there would have been no external trouble.

EXCESSIVE PAIN OF A NEURALGIC CHARACTER FOLLOWING AMPUTATION OF THE FOREARM.

[Read before the Norfolk (Mass.) District Medical Society, May 9th, 1866, by JOSEPH STEDMAN, M.D., of Jamaica Plain.]

E. J., aged 29 years, a resident of West Roxbury, in stepping from the late train, at the Jamaica Plain station of the Boston and Providence Railroad, on the night of January 12th, 1866, slipped, and fell under the cars in such a manner that one wheel of the rear car passed diagonally across the palmar aspect of the right hand; the flange of the wheel inflicting a deep flesh wound, while the bones of the carpus and metacarpus were completely crushed and comminuted. On the ulnar side of the forearm, commencing at a point near the styloid process of the ulna and extending an inch and a quarter above, was a deep elliptical opening, through which I could easily pass my finger and examine the bones of the carpus; and its condition was readily ascertained, showing the extensive comminution of the bones and indicating that the hand was only attached to the forearm by the integuments. The whole hand was dislocated forward and upward, while the extremities of the radius and ulna were entirely uninjured.

Deciding that amputation was necessary, I requested the presence of Dr. F. Minot Weld, who concurring in my opinion, we desired a consultation before proceeding to this extremity, and Dr. B. E. Cotting, of Roxbury, was selected. The opinion of Dr. Cotting being in harmony with that before expressed, I requested him to proceed to the operation, but he very generously declined in favor of one of the younger men present. It was then agreed that Dr. Weld should amputate; and at 3, A.M., of the 13th, the circular operation was

most skilfully and satisfactorily performed about four inches below the elbow.

But little hæmorrhage occurred; the arteries were secured, five ligatures being required, and a light water-dressing was applied. Up to the time of the administration of the ether but little pain was manifested; but soon after recovering from the effects of the anæsthetic, considerable pain was noticed in the stump, to relieve which morphine, in one fourth of a grain doses, was given.

Jan. 13th, P.M.—The patient was somewhat quieted by the morphine, and he seemed to rally from the shock sufficiently to realize all that was going on.

14th, A.M.—Some appearances of inflammation, and the water-dressing was continued. Slight delirium at times. Pulse 120 and weak. No appetite.

15th.—Less pain. Pulse 104. The flap seeming to be deficient in vitality, the water-dressing was omitted and a simple ointment applied. Diet of oysters and light food. Ale, in moderate quantities, to be allowed. P.M.—Flap looking decidedly unhealthy.

17th.—Has had a painful night, notwithstanding the morphine, and some disturbance of the abdominal region, with pain. Diet, essence of beef, tea and toast. Morphine q. s. to quiet pain.

18th.—More comfortable, except a difficulty in passing urine, and this he does with great effort, and only in the standing position.

19th.—Wound improving in appearance; line of demarcation well defined.

20th.—Slough commencing to separate. Considerable pain throughout the day. Morphine at intervals. Dressing of liquor sodæ chlorinata, diluted with water.

21st, 9, A.M.—Excessive pain. Slough separating, and appearing to involve nothing but the integuments. Removed portions of the decayed tissues.

22.—Slough entirely separated; muscular tissue not involved, and a fair granulating surface presented. Dressing of marshmallow ointment.

23d.—Feels much more comfortable. Slept nearly all night. Appetite improving.

25th.—There being a tendency to retraction of the muscular tissues from the extremities of the radius and ulna, and fearing they would be exposed, strapping over the end of the stump was resorted to.

26th.—Thirteen days after the injury, one of the five ligatures came away.

28th.—Much pain in the stump and arm. McMunn's elixir opii in twenty-drop doses, and repeat p. r. n.

30th.—Pain continues. Appetite poor. Essence of beef continued, with other nourishment, and ale occasionally. Continue elixir opii. In this case, some of the usual effects of opium and

morphine are not perceptible; constipation does not exist, and however much morphine is taken in the twenty-four hours, no contraction of the pupil is apparent.

31st.—He is very weak, and can hardly be prevailed upon to leave his bed, to sit up even for a short time.

Feb. 13th.—Has suffered much pain in stump and arm since last date, and the various preparations of opium have been tried in succession, and after a few days the effect of each appeared to be lost, unless given to an unreasonable extent. To-day, the subcutaneous injection of morphine was resorted to—one fourth of a grain under the skin of the thigh of the right extremity.

14th.—The injection proved a failure, for the pain in the stump was not lessened, and considerable pain was felt in the lower extremity, with soreness of the flesh. He was also lame and unable to walk across the floor, as he had done for several days before. Whiskey and morphine to quiet pain, with as generous a diet as he could be prevailed upon to take.

16th.—The second ligature came away; the others remaining quite firm. No force that he could bear would bring them away. The granulations of the stump appear healthy, but the process of healing goes on very slowly. About this time, a small point of the ulna showed itself, and strapping was again resorted to, with the view to cover the ulna. Severe pain of an intermittent and neuralgic character continues. *R.* Ext. hyoseyami, gr. iss.; pulv. camphoræ, gr. ss. *M.* Ft. pil. *S. p. r. n.*

17th.—More comfortable the past twenty-four hours.

18th.—The third ligature came away. Pain continues. Appetite poor. Granulating surface does not diminish in extent. Straps over the end of stump omitted. Ulna not seen, and well covered by granulations.

20th.—Excessive pain since last date. Opiates relieved only partially, and sleeplessness and nervousness marked. Under the granulating surface and around the edges of the stump there could be felt deposited a firm and nearly inelastic substance, supposed to be cicatricial tissue, with perhaps a nerve imbedded therein; and it was decided to open a portion of the stump, at the seat of greatest pain, and make an examination, with the view of relieving it if possible. Accordingly, I invited Dr. Weld to attend and open the wound, and we removed a portion (as large as the end of the index finger) of dense cicatricial substance, imbedded in which was a nerve, and near it one of the ligatures; another, about the same size, was also removed from the central portion of the stump. The fifth and last ligature was also removed at the same time, having been firmly held by a substance of the same nature. During the operation, although the patient seemed fully under the influence of the anæsthetic, a nervous twitching of the stump was observed, at times so severe as to interfere with the use of the instruments.

21st.—Severe pain, and resort to opiates.

23d.—A bad night and morning. The operation has not apparently had the least effect in relieving the pain.

24th.—More comfortable; had a tolerably good night by occasionally taking a dose of whiskey. Opiates do not do much good.

25th.—Pain more intense than ever before. Sprinkled morphine on the granulating surface.

26th.—Pain continues, though not with as much severity. There still being considerable deposit in the end of the stump, with swelling below the elbow, extract of belladonna reduced with lard was applied, with the hope of causing the absorption of this deposit, and thus perhaps moderating the pain. Sulphate of quinine was also given in pretty large doses.

27th.—Continue.

28th.—Does not bear quinine well; causes nausea and loss of appetite. Under the use of the ointment, the size of the stump has diminished, and much of the deposit seems absorbed; the stump has a more natural feel than before; the granulating surface is now about one third its original size, where it has remained for the last ten days without any perceptible diminution in extent.

March 3d.—Great pain. Have applied, since last date, fomentations of hops, belladonna ointment, alcohol, aconite, &c., but with no permanent relief.

6th.—Continued severe pain. Have urged another trial of the subcutaneous injection, but the patient, remembering his first experience, will not consent. He is losing flesh rapidly, and his appetite is very poor. No medication now, except occasionally a little whiskey, which is the only thing which gives him any sleep. The stump looks well, although the healing process goes on very slowly.

9th.—Pain continues, almost without intermission, and with no apparent cause. The patient consented to try the subcutaneous injection once more, and one fourth of a grain of morphine was injected in the region of the supra spinous fossa of the same side with the amputated limb; relief in five minutes, and in half an hour, he said, he fell asleep and slept most of the time until 9, A.M., the next day.

11th.—The improvement within the past twenty-four hours has been most gratifying. His appetite has improved, and the appearance of the wound has changed decidedly for the better.

28th.—Continues to improve. Has gained strength rapidly. Rode out to-day. Injections every second night, or he could not sleep on account of pain.

13th.—Injections of morphine continued. He tried to get along without it last night, being the second night, but suffered so much pain as to lose all sleep. Appetite continues excellent, and general health and strength are improving.

April 29th.—Three and a half months since the accident. Wound completely healed to-day. Pain, on handling the stump, slight. He

cannot get along, however, without the injections every second night, after which he goes to bed and sleeps soundly all night; on the intermediate night he gets very fair rest. Is out every day, and walks and rides as much as he likes.

The stump, considering the early sloughing of the flap, is of fair shape and proportions; though the radius and ulna are rather more prominent than is desirable, yet they are well covered with good sound integument.

This case is remarkable for the length of time required to heal the stump and for the excessive pain attending it from the first. Until the second trial of the subcutaneous injection, nearly every remedy known for the relief of pain had been carefully and persistently tried with but poor results, and it seemed probable that the patient might become insane unless relief could be found; but from the second trial of the injection every symptom improved, and if it had been used every night he would have been free from pain all the time. It was thought best, however, to use it only every second night.

This patient had every attention in nursing that a kind and devoted mother could give; a large and well-ventilated apartment, kept at an even temperature, and every comfort and luxury that the attending physician would allow; consequently nothing can be charged to lack of attention, or want of proper nourishment.

To a better understanding of the case, it should be mentioned that, five years since, in walking through one of the streets of Boston early in the evening, he fell into the cellar, left unguarded on the edge of the sidewalk, of a house in process of erection, and received considerable injury to the region of the spine and to the nervous system, by which he was confined to his room a few weeks. His mother thinks he never fully recovered from the shock of the fall, though he considered himself in good health and condition at the time of his recent accident.

How much the result of the former accident had to do with the present nervous symptoms I will not attempt to say, although it would seem that it might be safely inferred that the nervous system was somewhat weakened by the fall five years ago.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 36.]

POST-MORTEM APPEARANCES.

THE emaciation is not great; rigor mortis is usually very strong, though sometimes wanting. The petechiæ and other eruptive discolorations seen during life are usually present after death; sometimes they become developed then, though not previously visible; in a few cases the spots disappear during the last hours of life or immediately after. On incising them, they are seen to consist of an

infiltration of blood into the cutaneous and cellular tissues, and they vary in color according to the amount of blood effused.

The principal lesions are found in the brain and spinal cord. The morbid changes vary from slight increase of the number of hæmorrhagic points to extensive softening of the brain, with effusion of lymph and pus between the membranes. On removing the calvarium, a congested appearance of the dura mater is seen, and there may be a flow of fluid of a serous or sero-purulent character, probably from beneath the dura mater, though not stated in the account. Sometimes ecchymosis is found under the pericranium. The arachnoid, in some instances, has lost its transparency and become opaque, especially at the vertex. Beneath it may be seen the vessels of the pia mater engorged with blood, that membrane being congested. Between the membranes there is often an effusion of lymph, pus or serous fluid, which may also extend into the ventricles, distending them; lymph occurs more frequently than serum, and is deposited upon the under surface of the cerebrum, cerebellum, pons Varolii and medulla oblongata rather than upon their upper surface, and follows the sulci, nerves and vessels, imbedding them in its substance. Pus is often found in the same situations. The lymph is of a greenish or greenish yellow color, varying in amount from a thin layer to nearly half an inch in thickness, and in consistency from a dense, almost fibrous membrane to a soft, semi-liquid substance. The veins and sinuses of the brain are distended with dark fluid blood. The substance of the brain may be natural in appearance, but it is often congested, the hæmorrhagic points being increased in numbers; it may be softened almost to a pus-like liquid, though such an extensive softening may be partially cadaveric. On cutting into the brain, a serous liquid sometimes exudes in great abundance. The same congested appearance and softening are found in the cerebellum, pons Varolii and medulla oblongata. The choroid plexus has been found thickened, injected and covered with lymph. The most frequent lesions are, effusion of serum, lymph or pus, and a congested condition of the membranes or substance of the brain.

In the spine, a similar condition may exist, the membranes being congested; there being an effusion of serum, lymph or pus, and the substance of the cord being congested or softened. It is to be regretted that the spine has not been more frequently examined *post mortem* performed on persons who have died of this disease. So few are the cases recorded, that it would not be safe to enter upon any numerical statement of the comparative frequency with which lesions occur in this part of the nervous system. In twenty-nine instances the brain was examined; in only thirteen was the cord exposed, and in one of these to the extent of only three inches.

In the lungs, the only lesion which is at all general, is a congested state. This congestion is usually in the dependent portion, and is undoubtedly hypostatic, sometimes probably cadaveric. Occasional-

ly, there are hæmorrhagic spots in the substance of the lung, such as have been called apoplectic.

In the pneumonic form, or when pneumonia co-exists with the affection of the brain, there are found the lesions of the lungs usual in that complaint.

When there is sore throat during the course of the disease, marks of inflammation may be found after death.

The heart is occasionally found surrounded by serum or other liquid, contained in the pericardium. Sometimes there is a thick deposit of lymph upon the surface of the pericardium, and sometimes the same substance is found in one of the cavities. The coagula in the heart are often soft.

Upon opening the abdomen a petechial condition of the mesentery or the intestines may be observed occasionally, spots appearing upon the peritoneum similar to those seen in many cases upon the skin.

Among the viscera the liver and spleen are most frequently affected. They are enlarged, congested, or have undergone both these changes. At times they are as large as twice their natural size.

The stomach when not healthy is found to be congested or even softened; this latter change may, however, be cadaveric.

Peyer's patches are sometimes slightly ulcerated, more frequently unduly prominent. The solitary glands are occasionally enlarged.

The kidneys are not unfrequently congested, though no mention has been found of any abnormal appearances under the microscope.

The blood is frequently unnaturally fluid and dark colored; so general was this that it was occasionally considered characteristic of the disease.

Worms are sometimes found in the intestines and stomach, usually the lumbrici, though they probably had no influence on the disease; the fact being interesting because a complication with worms has existed in some parts of France and was there considered one of the most prominent symptoms.

In some instances, especially where death has followed close upon the attack, no lesion has been found in any part of the body sufficient to produce the fatal result. It must be supposed that then the shock has been sufficient to overpower the vital forces, or the change in the blood has been so great as to extinguish life immediately.

DURATION AND MORTALITY.

What data have we for answering the question so often asked, "Doctor, how long shall I be sick?" Tables I. and II., drawn up from the records of 164 cases found in various medical journals, may help to an answer.

If a patient lives beyond the sixth day there is some chance of recovery, less than one-sixth having died after that time; the most fatal period is from the second to the fifth day, more than half dying then. In regard to recovery it is not possible to give so precise informa-

tion. As will be seen by table II., health may be regained at any period from the third day to the tenth week. Many of the cases mentioned were not reported up to the restoration of full health. Convalescence is usually slow and tedious, and as soon as that was fairly established the record ends. This may perhaps account for the great difference in the length of the cases, some being recorded till health was entirely reëstablished and others only until convalescence.

The state of chronic ill health, or tedious convalescence, to which allusion has been made, and which is frequently found after an attack of cerebro-spinal meningitis, is the only sequela at all common, and postpones the return to health. Continued weakness of some of the limbs and general debility are the most usual symptoms of this condition. Occasionally abscesses occur, but not very often, and the impairment of the senses, which was noticed during the acute stage, may remain for many weeks.

This disease attacks by preference youths and those in good health. The very young, the aged and the feeble are less liable to it. Table III. gives a comparative view of the ages of those who were attacked. It will be seen that from 15 to 21 is the most exposed age, one-third of the cases having occurred during that period, and only five were attacked who were over forty.

Males were more frequently attacked than females, the former furnishing 114 cases, the latter only 36; sex not mentioned, 14. 67 cases, however, were soldiers or midshipmen in the academy at Newport; deducting these, we have only 47 males, and the disproportion is not so marked, though still noticeable.

The mortality was very great. Out of a total of 249 cases, death occurred in 147, and only 102 recovered. Of the 47 males not in the military service, 27 died; of the females, 18; showing a slightly larger proportion in the number of deaths among males.

TREATMENT.

A very important consideration, and one which will especially interest the patient and his friends, relates to the means of cure. Can anything be done to arrest the progress of the disease and restore health to the sufferer, or is it true that "physicians seem not to understand it"? The preponderance of deaths over recoveries would seem to show either that the disease has not been understood, or rather that the remedies have not been; or that it is an unusually obstinate complaint.

The natural tendency seems to be towards death. Treatment to be effectual must be early; in nearly every case where delayed long, death was the result.

It is generally agreed that all debilitating measures should be avoided; general bleeding is rather injurious than otherwise, though in the first and fifth cases recorded by Dr. Robert Burns, of Phila-

delphia, in the *American Journal of Medical Sciences* for April, 1865, bleeding seemed to be beneficial. In two other cases where this remedy was employed, death occurred. Local bleeding, especially by means of leeches to the back of the neck, or to the temples, and wherever inflammatory action has appeared, is beneficial. Emetics are useful only at the commencement when the stomach is oppressed with ingesta. Violent cathartics are contra-indicated. A supporting and stimulating treatment is demanded. Counterirritation by means of friction with stimulating liniments, sinapisms, dry cupping and blisters; heat applied externally to the body and lower extremities; cold to the head by means of ice-bags or cloths wrung out in cold water; stimulating enemata; gentle cathartics; quinine; opium to quiet restlessness and procure sleep; stimulants, and nourishment in the shape of milk punch, beef tea, strong broths, &c., have been generally adopted as the best means at our command to control this disease. Quinine and stimulants must be given freely and largely; opium is considered one of the most valuable remedies by many, and apparently with good reason, but it must be given in large doses frequently repeated. It was used thus in France by M. Chauffard with success, as mentioned below. It must, however, be acknowledged that a large proportion die under this treatment.

In addition to these remedies Dr. Upham employed small and frequently repeated doses of calomel, or calomel and ipecac; they were also employed by others. Many cases did well, and about the same number died.

The cases recorded by Dr. Robert Burns, of Philadelphia, include the largest proportion of recoveries, 9 in 12, and it may be interesting to attend to what he says in regard to treatment.

"The treatment pursued was the early abstraction of blood generally or locally, according to circumstances, to relieve the brain and spine. Stimulating frictions to the whole spinal column and extremities. Warmth to the feet, with sinapisms to different parts to cause counterirritation. Blisters sometimes, but seldom necessary. Stimulants. Diaphoretics when feverish. The liver and bowels steadily acted on by mercurial purgatives at night and castor oil next morning, and as soon as the violence of the symptoms abated, quinia freely administered to the amount of eight or ten grains per day for the first three or four days; this, however, to be varied according to circumstances. The nourishment chiefly beef tea or essence, barley gruel, sago and such other articles of a similar kind as best suited the desire or inclination of the patient." It will be seen that his treatment differed from others in a more general use of leeches.

Dr. McVey, of Morgan County, Ill., gave opium in large doses, Fowler's solution, and at length strychnia to counteract paralysis and nervous weakness. He had six recoveries and three deaths. His partner, Dr. Brown, had sixteen recoveries and five deaths.* Fow-

* Transactions of Illinois State Medical Society, 1864.

ler's solution was used with some success by Dr. Miner, in 1825, and by other practitioners during previous epidemics. Strychnia was used, though earlier in the attack, in many cases which occurred at Newport, recorded by Surgeon Wales, U. S. N., in the *American Journal of Medical Sciences*, April, 1863; but it does not appear to have contributed much to a favorable result. The 3d, 4th and 5th cases died under strychnia, while case 6 recovered without it.

Aconite was used in three cases which resulted in recovery.

There are three remedies which have been proposed, and which deserve notice: bisulphite of soda, permanganate of potassa, and ergot.

Bisulphite of soda was employed by Dr. Le Baron Munroe at the hospital on Galloupe's Island, Boston Harbor, in two cases, both of which recovered.* The same remedy was employed by Dr. Pearce, of Mechanicsburg, Ohio, with favorable results.† It has been used with success in pyæmia and other diseases in which the character of the blood seems to be changed, and if the disease we are considering is, as many think, caused by a vitiated state of that fluid, why may not the bisulphite be used with advantage? It is a remedy worthy of further trial.

Permanganate of potassa was used by Dr. Isaac Kay, of Ohio.‡ He says that of the first twenty cases of the disease in Springfield, O., only one recovered. Then the permanganate was employed, "one grain dissolved in one ounce of water and a tablespoonful given every hour." The patient to whom it was first given had been attacked thirty-six hours previously, and was delirious, breathing with difficulty and vomiting. "The vomiting ceased almost immediately, and the brain, in less than one hour, was considerably relieved of congestion, and the patient, after lying for three days in a partially delirious state, began very rapidly to recover, and in five days could walk about the city. Permanganate of potash, in the dose above mentioned, every hour, with occasional doses of opium to quiet the delirium, and an application of cold, wet clothes to the occiput and over the cervical vertebræ, constituted the only treatment." He says, "Since the adoption of this treatment three-fourths of the cases have recovered."

Ergot has been employed in five instances. In one case it was not given until the twenty-sixth day of the attack, and did not benefit the patient. In the other cases it was given early and they all recovered; but it is perhaps worthy of remark that three of these are among the most protracted cases recorded, two having had a relapse. To decide the relative value of ergot and permanganate of potassa farther experience is necessary.

In the chronic state of ill-health into which many fall who have

* Boston Medical and Surgical Journal, vol. 73.

† Cincinnati Lancet and Observer, May, 1865.

‡ Boston Medical and Surgical Journal, vol. 70.

recovered from the acute form of the disease, the most beneficial course of treatment is the administration of tonics, iron and quinine, and good diet, with attention to hygienic conditions. A change of situation and removal to another part of the country or travelling might afford benefit; in short, the methods usually employed for the restoration of a shattered and debilitated constitution.

The varied success of treatment in different places is, without doubt, due to variety in the severity of the epidemic, which in some places is very mild and in others rages with a mortality as great as that of the most fatal diseases.

TABLE I.—*Duration of Fatal Cases.*

Duration.	No. of Cases.	Duration.	No. of Cases.	Duration.	No. of Cases.
Less than 1 day.	9	8 days.	4	30 days.	1
1 day.	6	10 "	2	34 "	1
2 "	18	11 "	1	36 "	1
3 "	17	14 "	1	5-6 weeks.	1
4 "	16	18 "	1	Several days.	1
5 "	10	20 "	1	Not mentioned.	12
6 "	4	22 "	2		
7 "	1	24 "	1		

TABLE II.—*Duration of Recoveries.*

Duration.	No. of Cases.	Duration.	No. of Cases.	Duration.	No. of Cases.
3 days.	1	21 days.	3	58 days.	1
4 "	2	23 "	2	Few days.	1
5 "	2	26 "	1	6 weeks.	2
7 "	3	28 "	2	18 "	1
10 "	1	30 "	1	10 "	2
13 "	1	36 "	1	4 months.	2
14 "	3	37 "	1	5 "	1
16 "	1	40 "	1		
17 "	1	48 "	1	Not mentioned.	13
20 "	1	50 "	1		

TABLE III.—*Age and Position.*

Age.	Military.	Civilian.	Total.	Age.	Military.	Civilian.	Total.
1		2	2	21	5		5
1 $\frac{1}{2}$		1	1	22	3		3
2		2	2	23	2		2
3		2	2	25	2		2
4 $\frac{1}{2}$		1	1	26		2	2
5 $\frac{1}{2}$		1	1	27	1		1
6		4	4	28	2		2
7		3	3	29	1		1
8		2	2	30	1	2	3
9		2	2	31	1	1	2
10		4	4	32	1		1
11		4	4	34		1	1
12		1	1	37		1	1
14	1	2	3	38	1		1
15	4	3	7	40	2		2
16	3	3	6	42		1	1
17	4	1	5	46	1	2	3
18	8	2	10	68		1	1
19	11	6	17	Not stated	11	37	48
20	3	2	5		68	96	164

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

MAY 28th.—*Cerebro-spinal Meningitis*.—Dr. MORLAND reported the case, the following account of which is prepared from the record furnished by Dr. J. F. A. Adams, resident graduate in the Medical Department of the City Hospital.

G. W. T., twenty-eight years old, was admitted into the Boston City Hospital, May 24th, 1866, at 3 o'clock, P.M. He was at once seen and prescribed for by Dr. Adams. Very little of his previous history could be obtained. A friend, who came with him, stated that he was unmarried, and that, since he had known him—about two years—he had not been very strong, but that he was a quiet, temperate man. He was a dealer in photographs, and a resident of Boston. His father and a brother, it was stated, died of phthisis.

He was taken ill on May 20th, and is said to have been in a state of stupor during the first few days. Dr. George Derby, Admitting Physician to the Hospital, on first seeing him, supposed him to be intoxicated, but immediately discovering him to be very ill, sent him at once to the Hospital. On admission, he was almost completely unconscious, groaning and crying, as if in great pain, which, so far as could be ascertained, was in the head, and especially on the left side, and over the upper part of the forehead, upon which he constantly kept his hand. When aroused and asked if he felt pain elsewhere, he replied that he "did not know of any." The pupils were contracted, the pulse 68, very full, hard and irregular. He was exceedingly restless. A slight sero-purulent, dark-colored discharge from the right ear was noticed. A sinapism was applied to the back of the neck, and a scruple of the bromide of potassium was administered. At 7 o'clock, P.M., large sinapisms were applied to the calves of the legs, and the dose of bromide was repeated, and continued, every two hours, through the night. During the evening, six leeches were applied behind each ear, and the bleeding was very free after their removal. The urine was drawn off by the catheter, and was of a very dark, coffee color. The pulse rose to one hundred after the leeching, and became softer and more regular, but was still very variable. The pupils were then observed to be dilated, and they remained so. A few dark-colored, minute spots, not fading on pressure, were observed upon the chest.

The patient was seen by Dr. Morland about 10 o'clock next morning, May 25th. The pulse was then 120, and exceedingly small and weak; there was some sordes upon the teeth; the spots upon the chest were the same. The bowels had not moved since admission. A warm salt-and-water enema was directed; also an ice-bag to the head, and wine and water, freely. The patient was exhausted, and very restless during the entire day, crying and moaning, as if in pain, and quite unconscious. The enema produced a free evacuation of dark-colored fecal matters. The urine passed involuntarily. Gruel was swallowed without much difficulty. In the afternoon, the pulse was weaker and exceedingly irregular—varying from 80 to 160, within a few minutes, and almost without rhythm. A vapor-bath was used, in bed, and a

tolerably free diaphoresis obtained. The patient became more quiet after the bath, and the pulse was 152, full, soft and regular. The relief, however, was only temporary, and he continued in his previous condition, with the exception of increasing weakness, until 4 o'clock the next morning, when he died, about 37 hours after admission.

The nurse stated that she had observed convulsions, of short duration, but it could not be positively determined whether these were anything more than the violent jactitations, which were constantly present. There was certainly no opisthotonos.

On examination of the urine, *albumen* was found to be abundant, and the microscope revealed *granular casts* and *pus-cells*. *Urea* could not be detected.

In reference to the *diagnosis*, it was not easy to make a decision. Typhoid fever was suggested by the stupor, the sordes and the general condition. The spots upon the chest were not "rose-spots," nor were they of a purpuric nature. The somewhat dubious report as to the occurrence of convulsions, in connection with the results of the examination of the urine, suggested uræmia. It is fair to add, that, although cerebro-spinal meningitis was mentioned, in this connection, no positive diagnosis was made. The account of the *post-mortem* examination, which was made by Dr. C. W. Swan, Pathologist to the Hospital, is appended. The specimen was shown to the Society by Dr. Swan.

Autopsy.—May 27th, 9, A.M.—Membranes of the brain rather dry. A sub-arachnoid deposit of opaque, yellowish fibrin over the upper and anterior parts of each hemisphere, particularly towards the median line—at the base of the brain, extending into the various fissures, and upon the superior and cuneiform process of the cerebellum.

The whole length of the spinal cord was enveloped in a similar deposit, which was, however, less in amount towards the upper extremity than elsewhere. *Lungs* pale, healthy. *Liver* and *kidneys* rather dark. The *stomach* was distended with gases, and contained bright, olive-green fluid in large quantity. The *heart* was firm. Fibrinous coagula in both sides. Right auricle and vena cava distended by soft black coagula. About half an ounce of serum in the pericardium.

Dr. H. K. OLIVER said he saw this patient previous to his application for admission to the City Hospital. The first day of his illness great complaint was made of pain in one of the ears, the membrana tympani of which was much congested; the next day there was a great discharge of pus with a little blood from the same ear; there were then no symptoms of meningitis.

Dr. JACKSON suggested that in this case the inflammation might have extended from the ear to the membranes of the brain. He said this might take place though the bone intervening was perfectly healthy, and instanced several cases of the kind which had come under his observation.

Dr. OLIVER said the same idea had occurred to him.

Honoring a Physician's Memory.—The Nova Scotia Legislature has voted \$2,000 to the widow of Dr. Slayter, who died by cholera while employed in attending on the passengers of the ship *England*, which put into Halifax in distress last winter with cholera on board.—*Nashville Journal of Medicine and Surgery*.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, AUGUST 16, 1866.

CENSUS OF 1860.

THE last and fourth volume of this important national publication, containing the statistics of mortality and population of our country, has appeared. Five years of labor and two millions of dollars have been spent in its preparation, in collecting, arranging and utilizing this vast amount of material. In no other country is there such opportunity of studying the effects of diversity of climate, soil, occupation, and mode of life as our immense territory affords, bounded by the two oceans, and a sub-arctic and tropical line, embracing mighty rivers and fresh water seas, and containing a population composed of all the nations of the earth. Here, if anywhere, can many of those questions connected with the admixture of races and the exodus of nations, of so great interest to the anthropologist, be solved, and the essential truths in the study of the natural history of disease be recognized, for although our census is probably no freer from error than those of other lands, and is in many respects imperfect and incorrect, it is still uniform in its faults, and one method has been pursued in collecting data over the three millions of square miles it represents.

It is gratifying to learn at the start and before we turn to the hundreds of pages of figures and details of mortality, which have been so carefully compiled and digested by Dr. Edward Jarvis, of Dorchester, Mass., to whom the profession of this country owes so much for this and similar important but thankless labors connected with the statistics of disease and social science, that the ratio of death to life has diminished since the last census. In 1850, with a population of twenty-three millions, 323,023 persons died, or 28 deaths in two thousand; while in 1860, in a population of thirty-one and a half millions, the number of deaths was 394,153, or 28 deaths in every two thousand. The mortality being established at 22 per cent., and the increase at 35½ per cent., we arrive at the startling conclusion that the population of our country at this ratio in 1900 will amount to *one hundred and seven millions*.

The nomenclature and classification employed in this census is the same as in the preceding, viz. : that prepared by a committee of the American Medical Association in 1846, on the basis of the English reports, which reduces the great number of popular names of disease returned to the marshals to one hundred and twenty-four terms and thirteen divisions. The territory has been divided according to geographical position and climatic character into nine districts, as follows :—

I. Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut and New York.

II. Michigan, Wisconsin, Minnesota, and Nebraska.

III. New Jersey and Pennsylvania.

IV. Ohio, Illinois, Indiana, Iowa, and Kansas.

V. Delaware, Maryland, District of Columbia, Virginia, and North Carolina.

VI. Kentucky, Tennessee, and Missouri.

VII. South Carolina, Georgia, Florida, and Alabama.

VIII. Mississippi, Louisiana, Arkansas, and Texas.

IX. California, Oregon, Washington, New Mexico, Utah, Dakota, and Nevada.

The tables showing the proportion of white and colored population according to districts, the growth of the population in each district according to age and sex, the effect of distribution on the rate of mortality, on the dependent and sustaining classes, the composition of the population with the number and nativity of all foreigners in each State and principal city, and diffusion and migration of the native population, are all of great interest, but we have no space for their consideration.

As above stated, the number of deaths in 1860 was 394,153, of which 207,943 were males, and 186,219 females, and the cause of death is thus recorded in table II. of Dr. Jarvis's mortality statistics, on the following page.

Other tables, illustrating the causes of death in each State, the number and causes of deaths according to sexes and ages in each State, and according to months, are given. The fact that they occupy more than 200 quarto pages will show the minuteness of detail and care which have been observed in their preparation. The accompanying table furnishes the number of deaths from each class of diseases and their ratio to the population in 1859 and 1860.

DISEASES.	1859.		1860.	
	Deaths.	In 10,000 of all known causes.	Deaths.	In 10,000 of all known causes.
I. Zymotic diseases,	131,813	4,735	120,585	3,388
Sporadic diseases :				
II. Diseases of uncertain or variable seat,	21,044	758	32,354	909
III. Dis. of the brain and nerv. system,	23,787	854	40,393	1,134
IV. Dis. of the respiratory organs,	51,800	1,968	88,030	2,473
V. Dis. of the organs of circulation,	2,535	91	6,530	183
VI. Diseases of the digestive organs,	15,172	541	21,051	591
VII. Diseases of the urinary organs,	1,101	39	2,112	59
VIII. Dis. of genera. organs & childbirth,	3,842	135	5,682	159
IX. Diseases of the locomotive organs,	1,770	63	3,274	91
X. Diseases of the skin,	516	18	2,271	63
XI. Old age,	9,027	324	10,887	305
XII. External causes,	13,006	467	2,145	60
XIII. Stillborn,	377	13	1,540	43
XIV. Unknown,	44,233	1,588	36,707	1,031
XV. Violent deaths,				

Tables follow giving the number and proportion of deaths from each cause to total deaths from all known causes, so that the fatality and prevalence of every disease may be compared in various sections of the country, and showing the relative ratios of other countries in comparison with our own in a similar manner.

"All the Atlantic and Pacific States suffered less than the average, and all the Mississippi States suffered more than the average, from the zymotic class of maladies. Ohio, Indiana, Illinois, Iowa, and Kansas had the highest ratio—4,090 in 10,000, which is 75 per cent. higher than that of New England and New York, which was 2,723 in 10,000—the lowest.

DISEASE.	DEATHS.			DISEASE.	DEATHS.		
	Males.	Females	Totals.		Males.	Females	Totals.
Abscess,	349	219	568	Phlebitis,	11	14	25
Anæmia,	21	18	39	Pleurisy,	728	532	1,260
Aneurism,	33	11	44	Pneumonia,	15,816	11,278	27,094
Angina pectoris,	4	2	6	Prostate, dis. of,	4		4
Apoplexy,	1,779	1,304	3,083	Puerperal fever,		1,202	1,202
Asthma,	358	311	669	Purpura & scurvy,	52	27	79
Bowels, disease of,	901	709	1,610	Quinsy,	369	361	730
Brain, disease of,	3,344	2,382	5,726	Rheumatism,	1,106	775	1,881
Bronchitis,	1,052	867	1,919	Scarlatina,	13,221	13,181	26,402
Cancer,	1,230	2,062	3,292	Serofula,	1,401	1,302	2,703
Carbuncle,	63	35	98	Skin, disease of,	983	773	1,756
Cephalitis,	5,772	4,577	10,349	Smallpox,	736	535	1,271
Childbirth,		4,066	4,066	Spine, disease of,	616	462	1,078
Cholera,	599	397	996	Splenitis,	47	29	76
Cholera infant.,	2,582	2,326	4,808	Stillborn,	891	649	1,540
Chorea,	21	34	55	Stomach, dis. of,	137	137	274
Cold water,	5		5	Stone,	607	67	674
Consumption,	23,036	26,046	40,082	Sudden death,	469	347	816
Convulsions,	5,018	4,059	9,077	Syphilis,	139	94	233
Croup,	8,250	6,961	15,211	Teething,	2,563	2,346	4,909
Cyanosis,	9	20	29	Tetanus,	995	626	1,621
Cystitis,	151	31	182	Throat, dis. of,	1,710	1,916	3,626
Debilis,	1,077	1,064	2,141	Thrush,	511	501	1,012
Delirium tremens,	518	57	575	Tumor,	256	352	608
Diabetes,	289	96	385	Ulcer,	199	181	380
Diarrhoea,	4,339	3,511	7,850	Unknown,	19,181	17,526	36,707
Diphtheria,	788	875	1,663	Uterus, dis. of,		244	244
Dropsy,	6,161	6,496	12,657	Whooping cough,	3,832	4,576	8,408
Dysentery,	5,630	4,838	10,468	Worms,	1,041	955	1,996
Dyspepsia,	513	319	832	Yellow fever,	504	156	660
Enteritis,	3,556	2,748	6,304				
Epilepsy,	284	217	501	Aggregates,	193,765	180,257	374,022
Erysipelas,	1,451	1,295	2,746				
Fever, intermit.,	2,390	2,160	4,550	VIOLENT DEATHS.			
Fever, remittent,	5,768	5,352	11,120	I. Accidental.			
Fever, typhoid,	10,339	8,897	19,236	Acc. not specified,	3,513	665	4,178
Fistula,	30	7	37	Burns and scalds,	1,797	2,469	4,266
Gastritis,	479	540	1,019	Drowning,	2,664	457	3,121
Gout,	33	8	41	Fall,	1,019	304	1,323
Heart, disease of	3,452	2,954	6,406	Fire-arms,	694	47	741
Heat,	299	61	360	Freezing,	126	13	139
Hæmorrhage,	743	578	1,321	Lightning,	133	58	191
Hepatitis,	119	81	200	Neglect & expos.,	102	60	162
Hernia,	260	100	360	Poi-on,	557	393	950
Hydrocephalus,	1,880	1,534	3,414	Railroad,	542	57	599
Hydrophobia,	26	12	38	Strangulation,	189	102	291
Ilcus,	31	13	44	Suffocation,	1,091	1,038	2,129
Infantile,	3,374	2,860	6,234				
Inflammation,	730	596	1,326	Total accidents,	12,427	5,663	18,090
Influenza,	192	193	385				
Insanity,	251	201	452	II. Suicide:			
Intemperance,	842	89	931	Cutting throat,	71	11	82
Ischuria,	47	8	55	Drowning,	40	31	71
Jaundice,	365	316	681	Fire-arms,	109	3	112
Joints, disease of,	82	49	131	Hanging,	250	56	306
Kidney, dis. of,	644	172	816	Poi-on,	93	44	137
Laryngitis,	48	26	74	Strangulation,	2		2
Liver, disease of,	1,466	1,167	2,633	Not specified,	224	59	283
Lungs, disease of,	1,999	1,577	3,576				
Malformation,	73	54	127	Total suicides,	789	204	993
Marasmus,	470	439	909				
Measles,	1,937	1,962	3,899	III. Homicide,	428	33	461
Mortification,	184	96	280	IV. Murder,	479	49	528
Necrosis,	124	60	184	V. Executed,	55	4	59
Neuralgia,	411	492	903				
Old age,	4,899	5,983	10,887	Tot. vio. deaths,	14,178	5,953	20,131
Ovarian dropsy,		9	9				
Paralysis,	2,318	2,319	4,637	Grand totals,	207,943	186,210	394,153
Paramenia,		157	157				
Parotitis,	76	47	123				
Pericarditis,	27	22	49				
Peritonitis,	49	64	113				

"The class of zymotic diseases was relatively more fatal in Ireland, where 39 per cent. fell under it. In England, Scotland and France the relative mortality was about two-thirds, and in Frankfurt and Brussels about one-third, as great as that in the United States."

"The proportion of deaths from insanity was twice as great in New England and New York as in Michigan, Wisconsin, Minnesota, and Nebraska. The same difference existed between Districts III. and IV. ; and the same, and even somewhat greater, between Districts I. and VII. and VIII. The large proportion of insanity in California is produced by the excitement and oppressive anxieties, and the great and sudden changes of fortune among many of the people. The ratio was about the same in Great Britain and Ireland, and three and one-half times as great in France as in the United States."

"In 1850, 23,787, or 758 in 10,000 of all who died, fell under the *diseases or disturbances of the brain and nervous system*. In 1860 the number and ratio were greatly increased; 22,591 males, and 17,802 females, 40,393 in all, died of this class of diseases, in the proportion of 1,202 males, 1,065 females, and 1,134 of both sexes among 10,000 of each."

"Consumption was more fatal at the north than at the south, and more at the east than at the west, except at the extreme south. Among 10,000 deaths from all causes in each district 2,162 died in New England and New York, 1,793 in New Jersey and Pennsylvania, 1,535 in Michigan, Wisconsin, Minnesota, and Nebraska, 1,298 in the States between the Ohio river and the lakes in Iowa and Kansas, 1,215 in the Pacific region, 1,195 in Delaware, Maryland, District of Columbia, Virginia, and North Carolina, 1,048 in Kentucky, Tennessee, and Missouri, 568 in Mississippi, Arkansas, Louisiana, and Texas, 492 in South Carolina, Georgia, Alabama, and Florida. There is a wide difference in its fatality between the cold and the warm climates, being more than four in the extreme north to one in the extreme south in the Atlantic States, and nearly three to one between the diverse parts of the Mississippi valley."

"Diabetes caused the death of 231 persons in 1850; and of 289 males and 96 females—385 of both sexes—in 1860. This disease prevailed in much the largest proportion at the north. In the extreme northern and southern districts it was more in the east than in the west, but in the middle latitudes it was more in the west than in the east. The ratios were .19 per cent. in New England and New York, .10 and .11 per cent. in all the States north and west of the Ohio river, .09 per cent. in the southeast and in the Pacific region, and .03 per cent. in the southwest."

"It is to be noticed that the numbers frozen in the south exceeded those frozen in the north. There was a larger ratio of the deaths from this cause in the States south of the southern line of Pennsylvania and the Ohio river than in the States north of it, except the northwest. The largest number, 12, frozen in any State was in Michigan, the next, 11, in New York, and next, 10 each, in Mississippi and Texas. There were more persons frozen in either of the latter States than in all New England. Those in Wisconsin, Pennsylvania, and Georgia were the same, 7 in each; the same, 3 each, in Maine, New Jersey, and Illinois, and in Louisiana and Missouri. These must

be referred not to the temperature of the atmosphere, but to the habits of the people, to difference of exposure, and means of protection. In Sweden we find only 8 in 10,000 deaths from this cause."

"Of the 2,129 who died from suffocation, 1,831 were under 1 year, 1,991 under 2, and 2,049 under 5. They were probably the children of the slaves. No distinction of color or condition is made in the analysis of 1860, but the mortality report of 1850 states that, of the 934 deaths from suffocation, 771 were colored and 163 were whites; 764 were slaves, 7 were free colored, and 163 white; and of these 730 were under 1 and 880 under 5 years of age. In 1860, 872 were Districts V. and VI., and 1,128 in Districts VII. and VIII.; 2,000 were in the slave States, and 129 were in the free States."

A highly interesting table, showing the order of the States in respect to the fatality of the leading diseases is given on page 254. Then follow tables illustrating the ratio of deaths at each age from each cause; the number of each disease to 10,000 of all diseases at each age; the ratio of deaths in each month to total deaths in the year from each cause, demonstrating the effect of seasons and months on the causes of death; the order of the months in respect to the fatality of consumption; the ratio of deaths in each age to total deaths in each district; the mortality in the periods of life; the mortality of immigrants; the relative mortality of whites and blacks.

This brief enumeration of the contents of this portion of the census conveys but a faint impression of its elaborate and instructive character. The importance of the data it is charged with can only be appreciated by personal examination and study.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 11th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	50	51	101
Ave. mortality of corresponding weeks for ten years, 1855-1865	62.2	49.9	112.1
Average corrected to increased population	00	00	123.34
Death of persons above 90	0	0	0

CORRECTION.—In the third paragraph of our Editorial in last week's JOURNAL, for "Conference" read *Commission*.

NOTICE.—Part 53 of Braithwaite's Retrospect was mailed from this office on the 7th inst., and Part 6, Vol. VI. Medical Communications on the 14th inst., to the members of the Massachusetts Medical Society who have paid their assessment for the year 1866-67. Members who have paid and do not find the books at their postoffices, are requested to forward their vouchers to the Librarian, care of D. Clapp & Son, Medical and Surgical Journal Office, 334 Washington Street, Boston.

DEATHS IN BOSTON for the week ending Saturday noon, Aug. 11th, 101. Males, 50—Females, 51. Abscess, 2—accident, 3—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—inflammation of the brain, 1—cholera infantum, 30—cholera morbus, 3—consumption, 10—convulsions, 1—croup, 1—diarrhea, 7—diphtheria, 1—dropsy, 2—dropsy of the brain, 2—dysentery, 5—typhoid fever, 2—homicide, 1—infantile disease, 4—disease of the jaw, 1—disease of the kidneys, 1—congestion of the lungs, 2—marasmus, 4—measles, 2—old age, 1—phlebitis, 1—premature birth, 1—puerperal disease, 1—ulcers, 1—unknown, 6.

Under 5 years of age, 65—between 5 and 20 years, 4—between 20 and 40 years, 17—between 40 and 60 years, 8—above 60 years, 7. Born in the United States, 76—Ireland, 17—other places, 8.

THE
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No. 4.

ON THE ACTION OF HYDROCYANIC ACID, WITH EXPERIMENTS.

By ROBERT AMORY, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

PRUSSIC acid is contained in vegetable life—viz., in the kernel of the cherry, peach, bitter almond, plum, apple pips, apricots; also in the flowers of the peach, cherry laurel and bird cherry, the bark of the latter and the root of the mountain ash. It is doubtful whether it has been obtained from the ergot of rye in any large quantity. It is possible that hydrocyanic acid is the result of the decomposition of some azotized principles contained in the above-mentioned organic substances.* It has also been supposed to be present in some animal decompositions, and has been found in the form of Prussian blue in the blood, urine and menstrual fluid of human beings. The greenish blue discharge of some ulcers has also been attributed to the presence of this acid. The result of the decomposition of cheese does not properly constitute prussic acid, though such has been the opinion of some.

Prussic acid (Hey, or C_2NH) is a compound of cyanogen, which was the first discovered quasi-simple salt-radical, and hydrogen. Cyanogen burns with a peach-blossom or purple color, evolving carbonic acid and nitrogen. This gas cyanogen is soluble in water and alcohol, but more readily in the latter. Its specific gravity is 1.806, and is composed of two equivalents of carbon and one of nitrogen. Hydrocyanic acid has, in addition, one equivalent of hydrogen. This acid is readily decomposed by light, leaving a black residue, if there is any impurity in the solution.

All the compounds partake of the poisonous character of the acid.

Effects on Animals.—Prussic acid is poisonous to animal and even to vegetable life. Its poisonous effects seem to be conveyed by the blood to the nervous centres. Its absorption is very rapid, as much so by the mouth as when introduced hypodermically. Prussic acid must produce its poisonous effects by its absorption in the blood, for it is

* Vide Liebig's Familiar Letters on Chemistry, translated by Dr. John Blyth, p. 220 et seq.

is the road to the nervous system. This is demonstrated by the following experiment, which I performed on a young kitten.

Experiment I.—I tied a string around the upper part of the fore-leg of this kitten, and placed under the string a lever, twisting the string as tight as possible. Hydrocyanic acid, one eighth of a drachm diluted, was subcutaneously injected into the lower part of this same leg. No poisonous effects showed themselves for twelve minutes, after which the ligature was removed. In thirty seconds after the removal, labored respiration, and the whole train of poisonous symptoms to be described hereafter, appeared. Death ensued in fifteen minutes after removal of the ligature, and twenty-seven minutes from the moment of injection.

Again, if the spinal cord be divided at the junction of the last dorsal and first lumbar vertebra, and prussic acid be injected into the hind leg of an animal, poisonous symptoms ensue as rapidly as though this operation had not been performed. I have not tried this experiment, although its truth is vouched for by men whose veracity and observation cannot be questioned.*

Prussic acid acts very rapidly, and this induced some persons to think that the nervous system was directly affected. Dr. Webster† says that poisonous symptoms occur before the glass rod can be removed from the tongue. I have not, however, seen so rapid an effect. The shortest time that I have observed was thirty seconds.‡

The rapidity and violence of the symptoms does not depend on the amount taken, provided it be a poisonous dose. Three drops is sufficient, sometimes, to kill a young cat, and ten for an old one; this of the dilute acid. A smaller dose will kill a rabbit. The poison acts more slowly on the reptiles and cold-blooded animals. The horse is not susceptible to the poison, *by the mouth*, as illustrated by the following experiment.

Experiment II.—I gave to a horse of concentrated prussic acid half an ounce in a pint of water. No poisonous effects for three quarters of an hour, but immediately after the exhibition of the drug the horse stamped his feet, and seemed exhilarated. This lasted only a moment or two. I repeated my dose, giving the rest of the ounce in half the above quantity of water. This had only the effect of rousing the horse, who had a severe wound in the hock joint. He broke away from his groom, capering round, and had finally to be killed with the axe.

Dr. Dalton performed the same experiment (not as an experiment, but to kill the animal) with one ounce of the strong acid, with an effect of bringing a horse, apparently expiring, back to life again. I learn from Dr. Stickney, veterinary surgeon of this city, that two

* Vide Stillé on Therapeutics and Materia Medica, p. 212.

† Webster's Chemistry, sect. 723.

‡ Since writing this, poisonous symptoms occurred in a cat twenty seconds after its application to the mouth.

ounces of this acid have been administered to a horse without any apparent poisonous effects. It has been used as a remedy for tetanus in a horse, with apparent advantage oftentimes.

I also learn from Dr. Shattuck that he could not kill a *hyaena* with half an ounce of this poison, given by the mouth.

Also, a gentleman of my acquaintance gave a small quantity of concentrated hydrocyanic acid to a colt, which had broken its scapula. Immediately the animal rushed wildly round his box stall, discharging large quantities of *flatus*, as did the horse which Dr. Dalton tried to kill. This wildness lasted a short time and then ceased, the colt showing no signs of poisoning, and finally had to be butchered.

The rapidity of the poisonous action* does not seem very strange when we remember that ferrocyanide of potash, introduced into the circulation of a horse, has been detected in *twenty-eight seconds* afterwards, as having passed through the lungs, heart and body, on its way back to the right side of the heart.

I mentioned above that this drug acted less violently and more slowly on the reptiles and cold-blooded animals than on the warm-blooded. For instance:—

Experiment III.—I placed two tadpoles in a vessel containing a pint of water, and added thereto one drachm of dilute prussic acid, and in half an hour two drachms more. This seemed to have slight, if any, effect upon the reptiles, though they were observed to roll over, and swim about uneasily, with their bellies upwards. There being no other disturbance for an hour after the first addition of the acid, I left them, perhaps a little more sluggish than usual, and found them dead twelve hours afterwards.

Prussic acid seems to be present in the blood, after its administration, but not in the milk of animals, at least in a poisonous quantity. For—

Experiment IV.—I gave eight drops of dilute hydrocyanic acid to a cat, which was giving suck to a litter of three kittens at the time. In thirty seconds, labored respiration came on with the old cat, and other symptoms of poisoning. In six minutes, paralysis and coma, though the heart was beating rapidly and faintly. As soon as the respiration seemed affected, three eighths of a drachm of carbonate of ammonia was given in three divided doses, and also one fourth of a drachm of chloride of soda. Heart ceased beating in nine minutes. The kittens were suckling all the time, and ten minutes after the death of their mother, when they were removed, milk could be expressed from her nipples; but the kittens had no apparent symptoms of poisoning, not even dilatation of the pupils.

The following experiments will, perhaps, give a pretty clear idea of the symptoms of poisoning by this dangerous drug.

* Dalton's Human Physiology, p. 284.

Experiment V.—A full-grown cat was etherized, and all the large veins of one of her hind legs were tied. One eighth of a drachm of dilute prussic acid was injected into this leg subcutaneously. In one minute and a half afterwards the respiration was labored, the animal apparently gasping rather than breathing, the muscles of the chest acting spasmodically, with a pause between each breath. The pupils of the eyes were dilated, and, soon after, convulsions came on, preceded by sudden shaking or trembling. The convulsions grew more severe, until all the muscles were rendered tense, and ended in opisthotonos. At the beginning of the convulsion, the cat kept brushing rapidly with the paw, as if there were something on her nose. Slowly the muscles relaxed, and the convulsive movements of the chest subsided. The respiration became abdominal, and eleven minutes after the injection, a peculiar long drawn outcry was uttered. This cat had a succession of convulsions, all running together, each one being more severe than the preceding. At first, the animal appeared restless and uneasy, and fell over on her side suddenly, before her paroxysm commenced. After the cat uttered this cry, a dilute mixture of ammonia was held to her nostrils. In twenty minutes from the time of injection, her respiration was more regular. The eyelids also contracted by irritation, but narcotism was evident. A slight convulsion ensued in forty minutes, the pupil became more dilated; and from this time she began gradually to recover. This cat was killed afterwards by double the quantity previously given; and an examination proved that the recurrent blood was not checked in the limb operated upon. The right side of the heart and *all* the veins were turgid with very dark-colored blood. The muscles of the left ventricle were firm and unyielding, and also filled with blood.

Experiment VI.—A grey cat was treated with the same dose, also injected into the hind leg. This was followed by the same symptoms as in the preceding experiment. This cat also recovered. They both were sitting up, though quiet and sluggish, moving about with apparent difficulty when roused, for an hour and a half after the administration of the drug. They were both full-grown cats. No remedy was tried in this last case.

Experiment VII.—One eighth of a drachm of the acid was injected subcutaneously into the leg of a young kitten belonging to the same litter as in the first experiment. In four or five seconds labored respiration was noticed, gradually becoming abdominal. In a minute, convulsions, opisthotonos, coma, in succession, as above, life being indicated only by the pulsation of the heart, which ceased at the end of eight minutes after the administration of the drug.

Experiment VIII.—The above dose was administered by the mouth to a kitten of the same litter. Labored respiration in *thirty* seconds thereafter, succeeded by the same symptoms as in the other case; though the heart's action was rather more forcible than in the former. The pulsations ceased in eight and a half minutes after in-

gestion. Respiration in both these experiments seemed entirely absent three minutes after the exhibition of the poison; though gasps could be incited by pressure upwards on the diaphragm as long as the heart continued beating. These two kittens were experimented upon at the same time, and the symptoms were thus compared. This experiment would seem to indicate that the poison acts more speedily by the mouth than by subcutaneous injection, though the death ensued later in the former than in the latter mode of administration.

To show of how little avail reputed antidotes are, let me call attention to experiments numbered V. and VI. In the former case ammonia was inhaled, diluted ten times, and applied very cautiously; this cat, however, did not recover any earlier than No. VI. This method was also applied to the cat with young ones, mentioned in No. IV., and no advantage seemed to be derived. The giving of carbonate of ammonia can hardly be considered an antidote, for a chemical combination, cyanide of ammonium, will be found in the stomach. If all the acid has been absorbed, no stimulation by anything given by the mouth can be of use, for the stomach will not absorb anything, as the muscles are paralyzed, and the animal cannot swallow. Neither is there, in general, time to give any substance to combine with the acid to produce a harmless compound, even if such could be found. No effect seems to occur from a subcutaneous injection of carbonate of ammonia. (Experiment X.)

Experiment IX.—Eight drops of this drug was put into the mouth of a young rabbit. In less than a minute symptoms of poisoning were noticed, as in the above experiment. Immediately, cold affusion of water was tried upon the spine and then on the chest, in alternation, but in three minutes the rabbit was dead.

Experiment X.—I then subcutaneously injected one fourth of a drachm of the acid into the foreleg of a pregnant doe. In one minute and a half afterwards her respiration became labored, and I then injected three fourths of a drachm of carbonate of ammonia under the skin, and ammonia diluted ten times was held to her nostrils. Some slight abatement of convulsions. This was of no avail. Respiration ceased, but was incited artificially by pressure upwards on the diaphragm, which was continued for ten minutes. After the cessation of the heart's action, there was no response to this incitation. Tracheotomy was then performed, and the thorax opened. Air was then forced into the lungs, and, alternately with each blow, the heart was squeezed. We could not, however, resuscitate the doe.

I performed several other experiments (Mr. H. G. Fitz, of the medical class, assisting me, to whom I refer to corroborate my record of these experiments); in three cases giving strychnia for an antidote, but not with any benefit. Symptoms of poisoning were somewhat more varied than when prussic acid was given alone, and the

animals seemed to live longer. The same morbid appearances were observed after death as in the previous experiments.

I now propose to deduce from these and other experiments the symptoms of poisoning invariably occurring after the ingestion of this drug. After a poisonous dose has been placed in an animal's mouth, a period, varying from half a minute to two minutes, seems to elapse without any positive symptom other than restlessness. The first symptom to be noticed is a trembling and twitching in the muscles of the body, especially in the extremities and head. Next, a panting and gasping, as if there was some suffocation. After this, the respiration becomes more labored. This terminates what might be called the first stage of poisonous symptoms. In a period of time after ingestion of the poison, varying from one and a quarter to five minutes, convulsions occur. These come on suddenly, the animal falling over as if struck down, and after this the convulsions seem constant, ending either in opisthotonos, or, in two cases, in emprosthotonos, the body forming a complete arc. During and just before the convulsions, the pupils dilate very remarkably. The breathing seems to be arrested as during the convulsions. These convulsions last from a minute to two minutes, and afterwards the animal lies upon its side, with its muscles relaxed, and perfectly still, occasionally giving gasps, which can at any time be excited by a sudden tap on the chest, or a pressure of the diaphragm. From this time, coma ensues, and death, were it not for the heart's pulsation, is apparent.

The morbid appearances are:—congestion of the whole venous system, especially of the brain, but very marked throughout the whole body. The right side of the heart was also turgid, but the left ventricle was generally firm and unyielding, though the left auricle was empty in all cases. The lungs were sometimes pale, and sometimes red with blood. Prussic acid was detected, by the silver test, in the lungs, stomach, venous blood, and heart. The rigor mortis lasted for two days in two cases, when the *post-mortem* examination was made. The other autopsies were made immediately after death.

As to the action of this poisonous drug, I have little to say. The symptoms point to a derangement (probably depressing) of the nervous system, especially of the spinal cord. The cerebrum must also be affected, judging from the various accidents which have occurred by the poisoning of men by this drug. The case* which occurred at the Massachusetts General Hospital in April last would illustrate this point, perhaps.

“Examination on entrance” (I take the words from the records of the Hospital). “Patient was found *perfectly insensible*; respiration slow and rather labored; pupils dilated, and eyes open, fixed and protruded; conjunctivæ very slightly injected; face and neck congested, livid, with veins distended and prominent; pulse full,

* Vide Boston Medical and Surgical Journal of May 17.

bounding, regular and rapid. Patient lying immovable and relaxed on table; skin on forehead hot; temperature of extremities normal." Such was the train of symptoms. "Afterwards the patient had a paroxysm, convulsions of arms and legs, followed by rigidity; throwing back of head; some tendency to opisthotonos." This agrees perfectly with the symptoms in my experiments on animals. I forgot to mention that in all my cases circulation was very much accelerated, even to twice the usual number of pulsations. In this last case, when the patient returned to consciousness, he had suffered no pain, and had been unmindful of what passed around him, showing that the brain had undergone functional disturbance.

I think that I have gone sufficiently into detail to show both how fatal a poison hydrocyanic acid is, and what are the symptoms to be expected. I am at a loss to explain its physiological action, however. It may, perhaps, be some chemical action on the nerve-fibre, destroying its vital power, and producing a fatal effect upon life. We know that vegetable life is killed by this acid acting upon it, and we know that other acids destroy the tissue of the human body, entering into a chemical decomposition. Why might not this acid have some chemical affinity for the nerve-fibre, being carried through the body to the nerves by the blood? I do not know any experiment to prove this, however.

All the salts of this acid are poisonous. It seems strange that so violent a poison should ever be of any use in medicine. Yet its exhibition has shown its benefit. At one time it was even thought to be a certain cure for phthisis pulmonalis. To show by what means a drug may be *reputed* to perform a cure, I will tell the following story, vouched for by one who heard the truth from the patient:—

A young man, by the name of S——g, was far gone in consumption. A physician at Bristol, R. I., told him that he had great faith that prussic acid would work a cure, and asked the man if he would run the risk of taking so violent a poison. The patient consented. A dose, sufficient to make him feel "as though electricity were flying from his hands and feet," was given him. He soon after became unconscious, and remained so for some time. After recovering from the immediate effects of the drug, the Doctor told him to buy a horse and chaise, and travel all through New England for the whole of that summer, eating all the healthy food he liked, especially cream and eggs. The following autumn he was sent to Cuba, remained there, interested in business, and was alive to relate this story, being then 70 years of age. Now, prussic acid had little to do with the cure of *that* case of consumption. The hygienic principles built up that patient. One dose of prussic acid could hardly prevent the formation and softening of tubercles.

However, oftentimes an irritative cough in a consumptive patient may be greatly alleviated by the exhibition of one or two drops of dilute hydrocyanic acid, given three times a day. But the cough

does not produce tubercles, nor will this medicine prevent their formation. Also, in cases of an irritable stomach, occurring in phthisical patients, or from some nervous deficiency, the same dose will prevent nausea and vomiting; and may, sometimes, increase the appetite for food.

This drug has also been considered useful as a lotion in neuralgia, cephalalgia and the like painful troubles, but not when there is an inflammation of the nerve. In sciatica, its use has not been successful. Magendie has used, in these troubles, hydrocyanate of potash, which is nothing but cyanide of potash diluted in eight times its weight of water, and says that a vegetable acid will prevent the decomposition of this salt. This has also been used internally in the same dose as hydrocyanic acid. I give Magendie's prescriptions:—

Pectoral Mixture of Magendie.—℞. Potass. hydrocyanic. med., ʒ i.; aque distillat., Oi.; sacchar. purif., ʒ iss. M. ʒ v. 2 t. d. Or, ℞. Potass. cyanid., anyli, aa gr. iv.; syrup., q. s. Ut fiat massa in pil. viij. div. Dose, a pill night and morning, in convulsions, dyspnœa, &c.

I should be disposed, however, to limit the use of this drug to functional nervous irritation, in combination with iron, cod-liver oil, alcohol, or some such tonic; and in the case of nervous coughs connected with uterine disease, but only, however, with a view to palliation rather than a permanent cure.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 65.]

HISTORY.

Foreign History.—It is difficult to judge with regard to the nature of many diseases described by old authors, and still more difficult to satisfactorily prove that they are speaking of complaints essentially the same as those which we at the present day observe. If petechiæ were the prominent symptom of cerebro-spinal meningitis and confined to that disease alone, the task would be comparatively easy. But there is such a variety of symptoms, some of which closely resemble those of typhus—not only the eruption, but also the nervous and other symptoms—that it is very difficult to draw the line of separation.

The first distinct notice of petechiæ as a symptom is by Jacobus de Partibus, a French physician, who was driven from Paris on account of his opposition to the abuse of the baths, and resided afterwards at Tournay, where he died in 1465.* Though all the epidemics in which petechiæ are described among the symptoms may not have been instances of cerebro-spinal meningitis, yet from this date we have

* Sprengel's History of Medicine.

such descriptions more or less complete, and in some we can recognize a strong resemblance to the epidemics which have occurred in more modern times and borne that name.

In 1480 and 1481, a putrid fever, accompanied with phrenitis, prevailed in Westphalia, Hesse and Friesland.*

In 1503, an epidemic prevailed in Europe called *fièvre cérébrale, de cephalic, céphalalgie épidémique*. The symptoms most generally observed were, a violent delirium, convulsions, contractions of the limbs, immediately followed by prostration and coma. The pulse was frequent, irregular, feeble. Death happened speedily, sometimes in a few hours, more often during the third or fourth day.†

In 1505, an epidemic petechial fever raged in Upper Italy, of which we have a description. "This fever commenced with symptoms of little gravity; subsequently, there were developed all the signs of malignancy, with an extreme prostration of the powers. Heaviness of the head, dulness of the senses, delirium, and redness of the eyes, announced the affection of the nervous system. The urine was white and turbid, and the alvine dejections exhaled a fœtid odor. Towards the fourth or seventh day spots appeared, which did not lessen the intensity of the symptoms. The patient fell into a comatose state, or into complete insomnia; retention of urine occurred, without remarkable thirst; and, finally, hæmorrhages, which diminished his powers, and announced the approach of death." Such is the description, by Sprengel, of this fever, which carried off "an infinite number of sick," and which prevailed also all over Europe.‡

In 1508, Germany suffered from epidemic encephalitis and malignant pneumonia.§

In 1510, we again find mention made of *fièvre cérébrale*.||

Buscrius, in his Institutes, gives a good description of cerebro-spinal meningitis, under the name of petechial fever. He also mentions the *post-mortem* appearances.

"Frequently the membranes of the brain are found to be of a dark color, their vessels distended with black blood, and the cortical part of the brain somewhat livid; the stomach and intestines swelled, hard and black; the pancreas, liver and mesentery enlarged. In patients who had been cut off by hiccup, the stomach has frequently abounded with black spots. In others the veins and the membranes of the brain were varicose; the lungs gangrenous and sphacelated, and the blood in the cavities of the heart black and dissolved. Sometimes also abscesses of the brain were present, as well as of the breast, or abdomen. Very frequently, however, no visible taint is discovered anywhere which can be considered as the cause of the patient's death." The account of the symptoms given by Buserius

* Bascome on Epidemics. London. 1851.

† Macartin, Poirsin et Bricheteau, in Bul. de l'Acad. de Med., t. 9.

‡ Sprengel and Bascome, op. cit.

§ Bascome, op. cit.

|| Macartin, Poirsin et Bricheteau, loc. cit.

is also very good. Under this description he mentions an epidemic which occurred in 1528. Sprengel also mentions the same epidemic which, during the winter of 1527-28, prevailed in Upper Italy.

In 1556 a disease similar to this occurred in England and France; in 1557 in Spain, where it was as mortal as the plague; in 1564 it occurred in many places; and from 1569 to 1574 continued to prevail with much mortality. It was at Trent in 1591, and Florence in 1592.*

The epidemic of 1557, mentioned by Sprengel as described by Coyttarus, prevailed in the environs of Poitiers, La Rochelle, Angoulême and Bordeaux. It commenced in the month of May, and was so deleterious that, according to the expression of Coyttarus, the sick seemed to die rather from fear than from the disease itself. Sprengel also mentions an epidemic which showed itself in 1587 in Lombardy, described by André Tréviso, of Fontaneto. It prevailed during the winter; in the spring it was complicated with pleurisy, buboes and parotitis, and sometimes by worms. The same author speaks of the epidemic of 1591, described by Octavien Roboreto, which occurred at Trent after a warm summer.

The epidemic of 1557, in Spain, is mentioned by Bascome. He also speaks of a spotted fever which prevailed the previous year in Spain, but seemingly different from that in 1557. He mentions the epidemic of 1564, which was accompanied by fatal quinsies.

In the seventeenth century mention is not made so frequently of petechial fever. In 1604, Bascome says the "puncticular fever" extended and raged with great violence all over Spain, attacked old and young, none escaping.

In 1677 Buserius mentions the occurrence of the petechial fever in Italy.

In 1685, in the month of February, commenced the fever of which Sydenham gave a description under the name "*febris nova*." Intermittents had been the prevalent class of fevers from 1677 to 1683. The winter of the latter year was very severe, "*ut nemo quisquam viventium illi parem, vel intentissimo eo frigoris gradu, vel prælongo temporis tractu, videris unquam*;" that is, the "oldest inhabitant" could not remember so severe a winter. The winter of 1684 was not quite so severe, though more so than usual. He first considered the new disease which appeared in February, 1685, to be the same as peripneumonia, but subsequently changed his opinion. "The symptoms observed with what care I could give them are and were nearly these. The patient is attacked by heat and cold alternately; oftentimes there is complaint of pain in both head and limbs; the pulse is not unlike the pulse of health; blood drawn from a vein is frequently similar to pleuritic blood. The patient often suffers from cough, which, with the other symptoms of peripneumonia, yielded the quicker, the longer after winter the attack occurred. Pain is some-

* Dr. Gallup. *Epidemic Diseases of Vermont*. Boston. 1815.

times situated in the neck and fauces at the commencement of the attack, but lighter than in angina. Although the fever may be strictly continued, yet often most troublesome exacerbations occur at night, just as in double tertian or quotidian. However so lightly he may be covered with bedclothes, the patient does not lie in bed continuously without great danger; for the fever being then turned towards the brain he falls easily into coma or delirium. And, as I truly acknowledge, there is such an inclination in this disease to fall into delirium that often it suddenly and spontaneously steals over the patient unawares, without any cause. But the delirium does not rise in this fever to that pitch of irascibility and fury observed in those who are attacked with variola and other fevers; indeed the sick have rather a tranquil delirium, from time to time chattering nonsense. From the untimely use of cordials and a regimen a little stimulating, petechiæ often appear, and, in youths possessed of a sanguine temperament, maculæ, even purpuræ, a most certain sign of high inflammation, appear in this as in any other kind of acute disease. Now and then miliary eruptions, as they are called, are scattered over the surface of the body, not very different from measles, unless they are more red, and when they recede do not leave those furfuraceous scales which are seen in measles. These, indeed, sometimes break out of their own accord, but are oftener forced out by heat of the bed or the diet. The tongue, in proportion to the diet furnished, is moist or dry. When it becomes dry it is of a brown color in the middle and white on the edges. But where the tongue is moist it is white in every part, having a rough surface and a white coating; for if the patient becomes heated by a diet justly forbidden, the tongue is generally brownish and arid; but if otherwise, it is moist and white. The same may be said of the perspiration, which exudes in proportion to the varying regimen above mentioned; for if the patient is kept too warm, a viscons sweat constantly pours out, especially from the head. Although the perspiration flows copiously and uniformly from every part, he feels but little relief, whence it follows that such sweats are symptomatic and not critical. If a sweat was excited on the first day of the attack by artificial means, usually it caused the transfer of the morbid action, if not to the head, at least to the joints. But when the fever is situated in the head and at the same time the delirium has increased, no sign of fever remains, except that the pulse is now fast, now slow; at length, however, when from bad management, the spirit is led into every kind of confusion, the pulse becomes irregular, with subsultus tendinum; and not long after, death occurs."

From 1691 to 1694 the disease prevailed in Italy; in 1698, in England and at Halle.*

During the eighteenth century it occurred first in Prussia in 1704.

* Gallup and Buserius, *op. cit.*

England in 1710 and 1741, and Piedmont in 1720, were visited by a disease called spotted fever.*

In 1733 Edinburgh was under its influence. In this case the disease was accompanied by sore throat.†

In 1746, 1756, '57, and '58, France experienced the ravages of an epidemic. During the latter year it prevailed in the French fleet at Brest, under Admiral Dubois de la Mothe, and extended into the city. Fonsagrives gives the following description of the symptoms: "The patients felt at the commencement a heaviness of the head with acute pain at the superciliary ridges; their powers were weakened; the pulse was full and frequent; the skin was dry and burning; the tongue red; vomiting or at least nausea was commonly experienced; the epigastric region was the seat of discomfort and of an indefinable anxiety; they complained of a very grievous aching of the spine; constipation existed. Such were the symptoms of the commencement. In six or seven days the symptoms became singularly grave; the pulse lost its fulness, it became small and deep; there was tympanites; subsultus tendinum, buboes, petechiæ and parotitis appeared; the patient fell into coma, in which he usually died." In this epidemic about one in fifty passed worms.‡ The same year the epidemic was seen at Vienna; in 1764, at Naples and Montecchi; in 1765, at Tyrone, Ireland; in 1767, in Tuscany and the district of Aemilia; in 1771 and 1772, at Vienna.§

Sir John Pringle, in his work on the diseases of the army, first published in 1752, gives an account of jail or hospital fever, which, in many respects, reminds one of cerebro-spinal meningitis. It was introduced by changes of heat and cold, trembling, numbness and loss of appetite; skin hot; pulse at first a little quicker than natural; some pain and confusion of head, and dejection of spirits; pulse quick and varying in the same day, both as to strength and fulness. Bleedings were injurious, especially if repeated. Blood commonly little altered, sometimes fluid and the crassamentum resolved. Sometimes diarrhœa, when patient is kept too cool; if kept warm, constipation rather. *Calor mordax*. After a while delirium sets in. A petechial efflorescence is a frequent but not inseparable attendant on the fever, which is sometimes of a brighter or paler red, at other times of a livid color, but never rises above the skin. The spots were small but generally confluent. In a few cases there were purple streaks and blotches. The duration was from seven to fourteen or twenty days." He does not mention that any cases were so short as is sometimes seen in cerebro-spinal meningitis. In post-mortem examinations there were found cases of suppuration of the brain, which he calls abscesses. Purulent matter was found in the ventricles in one case, and the whole cortical and medullary substance was uncommonly flaccid and tender. In one case the brain,

* *Cop. Med. Dict., Webster on Pestilence.*

† *Annales d'Hyg. Pub. et de Med. Leg., t. 12.*

‡ *Buserius, op. cit.*

§ *Buserius.*

in another the cerebellum, was suppurating. In two the cortical substance of the brain had an inflammatory appearance, but no supuration. In some the intestines were diseased. The cause he considers to be a vitiated state of the air.

In 1788 an epidemic occurred in Cornwall, Eng., which was compared by Dr. Simmons with typhus. The account of the symptoms is not very full, but the disease strongly resembles cerebro-spinal meningitis.*

In the early part of the nineteenth century there were not many epidemics of this disease, but about 1837 it became more prevalent, especially in France.

In Geneva in 1805 a disease was seen which resembled cerebro-spinal meningitis in its sudden invasion, vomiting, pain in the head, rigidity of the spine, occasional petechiæ; the principal lesion was engorgement of the brain. One quarter died. Its attack was not general. It prevailed for only three months.†

In the same year a case occurred at Strasbourg, terminating fatally after two relapses, the last one being accompanied by cerebral symptoms. At the post-mortem the vessels of the head and membranes were engorged with blood; serous fluid was found between the meninges above the hemispheres. The brain was soft, the ventricles were dilated and contained about four ounces of turbid serum, with a deposit of pultaceous, puriform matter lining their cavity. There were also lesions of the lungs and heart.‡

On the 23d March, 1807, a family of fourteen persons who resided on one of the high declivities of Dartmoor in Blackaton, near Ashburton, were attacked with a disease which had many of the characteristics of cerebro-spinal meningitis. Five persons were attacked, of whom four died. One of them, however, was not in the family, and had not been near any of the sick. The symptoms were briefly these: pain in the head with slight rigors, slight convulsions of the limbs, nausea, thirst, pupils dilated, pulse weak and rather rapid, occasionally soreness of the throat at the commencement, in two cases petechiæ, and in two pain in the foot and lower limbs. There was no post-mortem. This disease did not spread, and these were the only cases. Nothing is said with regard to the situation of the house or the circumstances of the family, and the disease may have been typhus from some local cause, though it had a strong resemblance to cerebro-spinal disease.§

In the same year the Spanish prisoners who were confined at Briançon were attacked by a disease which was said by M. Billerey, physician in chief of the civil and military hospital at Grenoble, to

* London Medical Journal, vol. x.

† Vieussens in Jour. de Med. Chir. et Phar., t. xi.

‡ Journ. de Med., Chir. et Phar., &c., vol. x.

§ Med. and Phys. Jour., vol. xxviii.

be the same as afterwards appeared at Grenoble and Mayence, which was considered by M. Boudin as cerebro-spinal meningitis.*

In 1814, a disease appeared at Grenoble, which is described by Comte as follows:—"It showed itself at Grenoble during the months of February, March and April, 1814, in the garrison. The larger part came from the army of Mont Blanc, where, during very severe cold, they had performed very hard service, always in the snow, and exposed day and night to great fatigue; those who were attacked were almost all among the new recruits. The disease began as a true catarrhal, nervous or ataxic fever; at the end of two or three days the eyes became bright and flashing; the conjunctiva was injected, the muscles of the face exhibited convulsive movements, then appeared tetanic stiffness of the upper part of the body, the head being constantly bent back and immovable. The headache was sharp and constant, and was observed principally at the posterior part of the neck; a delirium, more or less violent, supervened. The disease frequently attacked persons in the hospital on account of other complaints. MM. Billerey and Bélon, physicians attached to the hospital, and who saw the first patients, thought that this was the same disease as the nervous fever of Dresden, Leipsic and Mayence."

"In every patient who died, there was constantly found dilatation of the cerebral bloodvessels, traces of inflammation, portions of that viscus apparently macerated and its various cavities filled with varying quantities of serum. The examination, extended even into the spinal canal, disclosed traces of inflammation of the internal surface of the membranes; similar appearances of a livid or dull red color in the cord itself, with some portions of the surface macerated and showing undoubted evidences of suppuration."†

The same disease also occurred at Metz, in 1815.‡

Biect, on the 14th of July, 1814, sustained a thesis before the Faculty of Medicine of Paris, wherein he asserted that the disease which had appeared in the army, and which he had observed at the Hospital Saint Louis, was not typhus, but a cerebro-spinal meningitis.

During the spring of 1815, there occurred at the University of Cambridge, Eng., an epidemic which in some of its symptoms and the *post-mortem* appearances very much resembled cerebro-spinal meningitis. The account of the symptoms is not very full, but the following case will serve to show the resemblance:—

"Mr. Joseph Wilson, æt. 19, had been in general good health, with the exception of occasional pain in the head. When I first saw him (March 25th, 2 o'clock in the morning), he complained of severe pain across the forehead, and heaviness over the eyes; his nurse

* Boudin on Cerebro-spinal Meningitis, in Arch. Gen. de Med., Avr., 1819.

† Recueil Gen. de Med., t. lviii.

‡ Boudin, Arch. Gen. de Med., Avr., 1819.

observed that she had several times found him wandering; it is probable that some slight delirium had existed from the commencement of the disease. My suspicions on this head arise from the mistakes he made in respect to dates. His skin was hot and dry, his countenance flushed, his tongue white, his appetite good, and his pulse 120 and full. From what I could collect, the disease had commenced March 15th, with the symptoms I have mentioned, but in less degree. 26th.—Symptoms somewhat aggravated. 27th, 2 o'clock in the morning, furious delirium came on, which left him at 8 o'clock, and his mind returned to the state in which it was when I first saw him. At 2 o'clock in the afternoon his body became sensibly cold, and was followed by moisture of the skin." He lived till April 1st, sometimes seeming better, and sometimes all the symptoms becoming more severe, and died at 1 o'clock on that day.

"*Post Mortem*.—On removing the calvaria, the vessels of the dura mater appeared distended with blood; the other vessels of the brain were fuller than natural; between the dura mater and pia mater there was a large quantity of fluid. The medullary substance of the brain contained many blotches of blood. The lateral ventricles were much distended with fluid. The gall-bladder was found empty. The stomach and intestines were much distended with flatus. The thorax was not examined.

"P. S.—He had also convulsive movements, especially of upper extremities, and subsultus tendinum and floccitation."*

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 23, 1866.

SEWING MACHINES.

If labor-saving inventions are a blessing to mankind—if doing a piece of work in one hour without proportionate fatigue is better than doing the same in six—if time is money—if hurry and care and anxiety in managing household affairs can be greatly lightened by any contrivance that the wit of man is capable of devising—then is the great American invention of the sewing machine worthy a most exalted position among the contrivances of human ingenuity. Surely nothing in modern days has done so much to diminish the weary labors of the weaker portion of humanity, the perpetual "stitch, stitch, stitch," which has worn out so many victims, as this faithful servant which now does its nimble work in almost every household. Its introduction, however, excited not a little apprehension among thinking people, lest its immense capacity for rapid execution should so far supersede hand work as to throw out of employment many industrious women, who

* Med. Trans. of Col. of Physicians of London, vol. v., 1815.

depended upon the needle for their daily subsistence, and thus prove it to be a gift of very equivocal value to the world after all. Experience, however, has shown that in this, as in all other instances of a similar character, the public soon accommodates itself to the new order of things, and new openings are found for the industrial force for the time deprived of its usual resources. The many new occupations which of late years have given employment to our young women seem to have created a demand which is not more than met by the supply.

Other considerations in time presented themselves to medical men—such as the possibility that the mechanical force required to operate these machines might overtask the physical strength of the sex for whose use they were specially intended. As employed in doing the work of most private families, accomplishing in a few hours the work of days, it was hardly to be apprehended that this could be a serious evil. But when adopted, as it soon got to be, in large manufacturing establishments, where the labor was continued from morning to night throughout the week, and week after week, month after month, it required no special gift of prophecy to anticipate that this possibility would become a certainty. We speak to the experience of most physicians, we believe, when we say, that sewing-machine work has got to be a very productive source of debility, and nervous disorders in females. Exhaustion, emaciation, leucorrhœa with its concomitant backache, are among the most common effects of too assiduous application in driving and feeding this untiring and vivacious little instrument. We have frequently been obliged, in common with most of our medical brethren, to restrict its use very greatly or to interdict it altogether. We have been led to take up this topic, however, at the present time, by reading in the *Union Médicale* an article which puts even a graver aspect on the effects of excessive use of this valuable invention. The article is entitled "The Influence of Sewing Machines on the Health and Morality of Workwomen." It is an analysis of a paper read to the *Société Médicale des Hôpitaux* of Paris, at the meeting of May 9th, by M. Guibout. He begins with the recital of a case. A young woman, whom he had known as the very picture of vigorous health, presented herself at his office in such a condition of emaciation, and with such a change of countenance, that he was greatly shocked at her appearance. The explanation which she gave was as follows. For seven months, from morning till night, she had worked at a sewing machine, known as the "American machine." The constant motion of the lower extremities in propelling it had produced such an excessive excitement of the sexual organs that she was often compelled to suspend her work; and to the frequency of this effect and the fatigue resulting from it, she attributed the leucorrhœa and attendant loss of flesh and strength from which she was suffering. The effect seemed to be naturally enough explained by the cause alleged, especially as in some of the machines at which she had worked the pedals were depressed alternately with one foot and the other. This case, so serious in its nature, was regarded by M. Guibout as probably the result of a peculiar susceptibility on the part of the patient, and so very exceptional at the time as only worthy of record as a curiosity. But during the past year, he goes on to say, he found in the hospital Saint-Louis, three similar cases; and during the present year

he had already found five in the same hospital. He also adds that within a month "two females, entirely unknown to each other, and working in different shops, called upon him on the same day, to consult him for similar symptoms. The first of these, a blonde, in the most vigorous health when she began to work at the machine, in seven or eight months had become enfeebled, her *embonpoint* was gone, her general health had declined, and she had become the subject of a profuse leucorrhœa, which was daily increasing. She said also that many of the girls in the same establishment were affected in the same way, by the same cause, "the continual movement of the lower limbs, the jar and the swaying of the body." She denied, however, that she had been troubled by the special symptoms mentioned by the first patient, but said that many of her companions had been. Many of them had been so annoyed as to be obliged frequently to suspend their work and leave the shop for the purpose of bathing with cold water.

The second of these two patients was a brunette, of entirely different temperament from the other. She had been obliged to give up her place after working at the machine for a year, on account of the same symptoms. To the inquiry as to any local excitement produced by it, she answered in the affirmative. To translate her own words: "Among 500 women who worked with me, there were at least 200 who, to my knowledge, suffered as I did; so that the operatives were constantly changing, none of them being able to stay long. It is a constant going and coming of women, who enter strong and well, and who go out weak and emaciated."

M. Guibout went on to recite other instances equally serious, but it is not necessary to quote them. The subject is one of very grave moment and worthy of the consideration of every physician. In the discussion which followed the reading of his paper, some of the members of the Society were disposed to question the frequency of the peculiar symptoms which he reported. He, however, maintained his position, urging that it was very difficult to get a confession from many of the victims of the machine, so that when directly interrogated, a negative response should not always be received as the truth. The large number of cases which had come under his own observation had led him to lay this painful subject before the Society.

These cases speak for themselves, and open a new chapter in the history of an invention which is generally regarded as only beneficent in its operations. In America, we believe, it is usually the case that in manufacturing establishments which run a considerable number of these machines, steam or some other mechanical motive power is employed. The admirable little hot-air engines, safe and moderately expensive as they are, which are becoming so popular, might be most admirably employed for such a purpose, while in winter they would help to warm the working apartments. But there are many small establishments, where only a few hands are employed, in which the treadle is the only motive power engaged. In such establishments we may look for the evils spoken of above. We have felt it our duty to lay this subject before the profession, feeling that if all these evils are found to exist here, their personal influence will have great weight in inducing the principals of such establishments to spare their operatives the terrible physical and moral injury depicted by M. Guibout, by the introduction of suitable machinery.

Death of Dr. Nathan Hayward.—Died at St. Louis, of cholera, on the 17th inst., Dr. Nathan Hayward, formerly of Roxbury, Mass., aged 33 years. Dr. Hayward was widely known in this community, and his sudden death will be felt as a personal loss by many warmly attached friends. His nature was peculiarly genial and kindly, so that he endeared himself in an unusual degree to all who knew him. He was a young surgeon of great promise, and had served with distinction through the recent war as Surgeon of the 20th Massachusetts regiment, which he accompanied to the field at its first organization. Dr. Hayward had been practising in St. Louis for the year past, and was about to be married to the daughter of Charles Howard, Esq., of Springfield, Mass., when he was thus cut off, a victim to his assiduous devotion to the unfortunate sufferers by the prevailing epidemic in the city of his adoption.

Death of MM. Gibert and Chaussier by Cholera.—Recent arrivals from Paris announce the death, on the 31st ult., at the age of 69 years, of the distinguished French dermatologist M. Gibert, by the reigning epidemic. M. Gibert had suffered for several days with the premonitory symptoms, but neglected to adopt any precautionary treatment. He had repeatedly at the meetings of the French Academy denied the frequency and significance of the premonitory diarrhœa. He died in a few hours after being seized with cholera. For more than twenty years he had been one of the physicians of the Hospital Saint Louis, and was widely known for his acuteness and quickness of diagnosis of cutaneous disease. His writings and his clinical courses have made him illustrious. When he succumbed to the fatal malady, he was unwilling to take any remedies, but turned only to his spiritual adviser for comfort and consolation; and died, in the words of his eulogist at his funeral, M. Hardy, "a rare example of resignation and courage."

M. Franck Chaussier was the second and only surviving son of the distinguished François Chaussier, of the Academy of Sciences, who died in 1828. The son did little to sustain the reputation of his father, and after leading a reckless life has left to the hospitals of Paris a fortune of 850,000 francs, bequeathing to his excellent wife a mere pittance of 5000 francs.

Progress of Cholera in the United States.—In the absence of authentic official statements we do not think it worth while to copy the daily newspaper reports of the mortality in different places. At New York and on the islands in the vicinity, at Brooklyn and Philadelphia it has almost died out. The number of cases is said to be diminishing at New Orleans and St. Louis. At the latter city, during the week ending on Friday the 17th inst., there were 895 burials, of which 648 were from cholera, not including the deaths at quarantine, and at the smallpox hospitals in the various wards. The disease has raged fearfully at Cincinnati, and has made its appearance at Chicago and Louisville. It is very severe on the river plantations near New Orleans, chiefly among the negroes. Its progress up the Mississippi, and its distribution among the cities and towns on its banks or on tributary streams, are a striking illustration of its portability, and of the law of its advance only so fast as it is conveyed by man. As yet we have

had but one case in Boston, that of the soldier who brought the disease from Hart's Island some weeks since.

The Gazette Médicale of Montreal closed its career with the number for July, at the end of its first year. If we mistake not, there is now no medical journal published in Canada or the British Provinces. Each in turn has succumbed to the same cause, inanition from want of support by the medical profession in British America. This is a state of things which does little credit to their professional zeal or enterprise.

Messrs. Editors,—Presuming that the frequency with which hernia occurs in our male population, and the comparative frequency of the several varieties, are matters of interest to the profession, I present the following statement, obtained in the examination of men for military service :—

Number of men examined, 10,000. Number rejected on account of herniæ, 455, or 45·5 per 1000.

VARIETIES.— <i>Femoral Hernia</i> —Right femoral hernia,				1	
Double “ “				1	2
<i>Umbilical Hernia</i> ,					6
<i>Ventral Hernia</i> ,					9
<i>Inguinal Hernia</i> —Right inguinal,				234	
Left “				173	
Double “				31	438
					<hr/>
					455

The reader will be struck with the rarity of femoral hernia, not merely in comparison with inguinal hernia, but with the other and less frequent forms of the affection.

It is worthy of note that the *right* is the affected side in very nearly two thirds of the cases of inguinal hernia.

Malden, August 8th, 1866.

JOHN L. SULLIVAN, M.D.

Memorandum for the Information of Persons desirous of entering the Medical Corps of the Army.—[Extracts from laws of the United States.] Act of Congress approved July, 1866.

“Sec. 17. *And be it further enacted*, That the Medical Department of the Army shall hereafter consist of one Surgeon General * * * One Assistant Surgeon General * * * * * One Chief Medical Purveyor and four Assistant Medical Purveyors * * * Sixty Surgeons, with the rank, pay and emoluments of Majors of Cavalry. One hundred and fifty Assistant Surgeons, with the rank, pay and emoluments of First Lieutenants of Cavalry, for the first three years service, and with the rank, pay and emoluments of Captains of Cavalry after three years service. * * * and all the original vacancies in the grade of Assistant Surgeons shall be filled by selection by examination.”

The number of vacancies now existing in the Medical Corps of the U. S. Army is sixty, forty-six of which are original vacancies created by the Act of Congress approved July 28, 1866, as quoted above.

All candidates for appointments in the Medical Corps, must apply to the Surgeon General, U. S. Army, for an invitation to appear before the Medical Examining Board. The application must be in the hand writing of the candidate, stating age and birthplace, and be accompanied by testimonials from Professors of the College in which he graduated, or from other physicians of good repute. If the candidate has been in the medical service of the army during the war, the fact should be stated, together with his former rank, and time and place of service, and testimonials as to qualifications and character from the officers with whom he has served should also be forwarded.

Candidates must be graduates of some regular medical college, proof of which must be submitted to the Board before examination.

Foreign Medical Intelligence.—The son of Prof. Hebra, a cadet in the Austrian army, is wounded and a prisoner in the hands of the Prussians. The son of Prof. Pilha, aged 18 years, a lieutenant of cuirassiers, was mortally wounded at Skalitz, and also fell into the hands of the Prussians.

We see it stated that since the brief campaign in which Prussia has been so triumphant, Austria has joined the Association for the relief of suffering on the battlefield. It will be remembered that before the war she was the only Christian nation of Europe which held back from joining this truly humane organization.

The movable ambulances of the Prussian army contain 20,000 beds, which are stationed here and there, as occasion requires, in small temporary hospitals, to avoid crowding and the accompanying evils. Six thousand beds have been sufficient thus far, it is said, to meet all the wants of the army.

Sir James Clark has been elevated, by order of Queen Victoria, to the dignity of Commander of the Order of the Bath.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 18th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	54	49	103
Ave. mortality of corresponding weeks for ten years, 1855-1865	54.3	53.1	107.4
Average corrected to increased population	00	00	118.16
Death of persons above 90	0	1	1

CORRECTION.—On page 68 of the last number of the JOURNAL, 18th line from bottom, read 25 deaths, instead of "28" deaths.

COMMUNICATIONS RECEIVED.—Rational Treatment at La Charité; Treatment of Pneumonia.—Uterine Hamorrhage, by E. J. Townsend, M.D., of South Natick.

DEATHS IN BOSTON for the week ending Saturday noon, Aug. 18th, 103. Males, 54—Females, 49. Accident, 3—apoplexy, 1—inflammation of the bowels, 2—disease of the brain, 3—inflammation of the brain, 3—cancer, 2—cholera infantum, 20—cholera morbus, 1—consumption, 15—convulsions, 2—croup, 1—diarrhœa, 4—dropsy, 3—dropsy of the brain, 1—drowned, 3—dysentery, 9—typhoid fever, 4—infantile disease, 2—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 4—marasmus, 1—old age, 1—premature birth, 3—malignant pustule, 1—ulceration of the stomach, 1—tumor, 1—unknown, 8—whooping cough, 2.

Under 5 years of age, 49—between 5 and 20 years, 12—between 20 and 40 years, 19—between 40 and 60 years, 15—above 60 years, 8. Born in the United States, 73—Ireland, 27—other places, 3.

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BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, AUGUST 30, 1866.

No. 5.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 87.]

DURING the years 1813, 1814 and 1815, an epidemic occurred in Dublin, Ireland, and vicinity. It prevailed during most of the year, but worst in winter, and with a character somewhat different from that which it had during the rest of the year. Dr. Edward Percival gives an account of it. He says:—"The worst forms of typhus fever prevailed at an advanced period of the *winter*. Livid blotches, a dry tongue, dark and tenacious mucus on the gums and lips, muttering delirium, singultus and lethargy, were frequent symptoms. Peripneumonic distress attended at least the commencement of most of these cases. The hepatic viscus was also frequently engaged. But the peculiar seat of sanguineous congestion appeared to be the brain and its investing membranes.

"All ages, except infancy, were liable to the fever, the duration of which, under the circumstances above described, seldom fell short of fourteen days and often exceeded seventeen. It proved more fatal than any other form of epidemic or contagious fever."

"In typhus, with subdelirium and comatose affection, the brain exhibited, on inspection, all the usual marks of vascular congestion. These were not less observable in cases more protracted. On removing the upper part of the cranium, blood was frequently effused. The vessels of the pia mater and plexus choroides were often turgid, and the capillaries occupied with blood; a glairy fluid, sometimes tinged with blood, was interposed between this membrane and the arachnoid tunic. More or less serous effusion was found in the ventricles. The substance of the brain was in some cases firmer, in others softer than natural. On dividing its substance, numerous bloody points usually presented themselves on the surface of the separated parts. No case of abscess of the brain occurred to my observation."

Either the lungs, pleura, liver, peritoncum or intestines were almost always diseased.

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He considered it contagious, though only slightly so.*

An account of a fever which prevailed in Italy and many parts of Germany during 1817, is given by Dr. John Bell. He says that it seems to have been imported into Italy several centuries previous, and sporadic cases appeared every year. "The premonitory symptoms of the disease are pain in the head, muscles and bones, especially in the loins and inferior extremities, want of appetite, little sleep, universal prostration of both physical and intellectual power.

"After the disease is completely formed, the patient suffers from an increased pain in the head, greatest over the eyebrows, watchfulness, involuntary shedding of tears, stillicidium from the nose, heat and pain of the fauces, violent thirst—the tongue moist, covered with a whitish-yellow crust, red at its edges, depraved taste, a sense of bitterness in the mouth, and weakness of stomach, with a desire to vomit—eyes inflamed and sparkling, cough and a troublesome sensation of tightness at the scrobiculus cordis, dry skin, a sense of burning heat attended with cold fits all over the surface of the body—pulse weak and quick, although sometimes full and vibrating, bowels constipated. The fever often presents itself with the character of an intermittent, but soon takes that of a remittent or continued fever. Most commonly, the patients are affected from beginning to end with a violent acute fever, though cases are related where the fever was scarcely perceptible. The physiognomy is of a wretched and desponding cast.

"Such was generally the first stage of the disease. In the second, that is from the fourth to the eleventh day, it became more aggravated—the pain in the head is augmented—some tension of the abdomen is felt, and, according to the particular viscus attacked, succeed either delirium or the symptoms of peripneumony and a sthenic affection of the liver and intestines, or of all the viscera at the same time. Delirium, the effect of cerebral inflammation, is often united to the inflammatory symptoms of the breast, and those of the liver and intestinal tube; the tongue is observed to be red at its apex, dry, and loaded at its base; the looks of the patient are languid and vibrating; the tongue and hands tremble; there is pain, or tinnitus aurium; the pulse is weaker and more frequent; the excretions are small at this time; petechial eruptions, muttering and delirium at night next succeed.

"As respects petechiæ, Palloni remarks that from the third to the seventh day red spots, pointed, irregular and slightly scabrous and elevated, and also petechial spots on the neck and shoulders, extend to the body."

They do not desquamate, are uniform in shape, and have no effect on the progress of the disease.

Appearances on dissection were, effusion into the thorax or abdomen of lymph; brain engorged, effusion between the dura and pia

* Transactions of Fellows of King's and Queen's College of Physicians, vol. i., 1817.

mater, sinuses full of blood, membranes adherent, substance of the brain softened.*

There is no account of any similar epidemic until 1823, when a disease appeared in the Millbank Penitentiary, near London, of which a good description is given by Dr. P. M. Latham, attending physician. The disease exhibited such various symptoms, and was in some respects so dissimilar to the varieties now observed, that a pretty full extract will be interesting.

In the autumn of 1822 the health of the prisoners began to decline. They became pale and languid, thin and feeble. Still, there was no manifest sign of any particular disease. In the beginning of February, 1823, Mr. Hutchinson reported some marks of scurvy in a few individuals. In the last fortnight of February, nearly fifty cases of diarrhoea and dysentery were admitted to the hospital, suspected to be scorbutic dysentery.

Dr. Latham entered on his duties March 1st, and found scurvy prevailing, complicated with diarrhoea and dysentery, and, on *post-mortem* examination, a state of the intestines was found resembling the state of the skin, viz., having ecchymotic spots of various sizes. It was found that the diet of the prisoners was very deficient in animal food, as only one and a quarter ounces of meat for each man and less for each woman, was allowed to make soup. More meat was allowed, and the health of the prisoners improved, and in a report made to Parliament April 5th it was so stated; but after that date the diarrhoea and dysentery returned. During the first part of the attack of scurvy, various degrees of nervous affection, as tremors, cramps, spasms and mental despondency, were noticed, and attributed to constitutional debility. It was not long, however, before the nervous symptoms became more marked; and a man, 31 years old, suffering from cramp and diarrhoea, died suddenly apoplectic. On examination, the vessels of the brain were found slightly turgid, and a few spots of ecchymosis on the intestines were observed.

The bowel complaints were peculiar in their nature. "There was every degree and species of flux that was ever seen or described, resembling cholera, dysentery and common light diarrhoea, and there were cases entirely different from either. In the evacuations there appeared nothing that had any visible quality of faeces, bile, blood, or mucus; they consisted, sometimes, of a mass, like green or black grapes in a state of fermentation; sometimes a matter like yeast; sometimes they were in color and consistence like half-slaked lime, when it is beginning to crumble, and sometimes like a thin mixture of chalk and water, and always intolerably sour and offensive, and in enormous quantity." With this diarrhoea there were still more marked cerebral symptoms. "There were several cases of phrenitis. To sudden and acute pain in the head, were added vertigo, confusion of intellect, twitching of the tendons, *strabismus*, dilated pupils—and,

* Philadelphia Journal of Medical and Physical Science, vol. i.

lastly, distortion of the month and hemiplegia." That the bowel complaint and the nervous disorder were due to the same morbid agency, is proved by the fact that they were coincident and occurred together in the Penitentiary, and the same person was affected by both, and the same remedies were beneficial in relieving both.

The accession was sudden in both the bowel complaint and the nervous disorder, when one was not accompanied with the other; and the premonitory symptoms, when occurring, were very similar. The fever attending both was very moderate. One symptom, which gives it a strong resemblance to spotted fever, or cerebro-spinal meningitis, as described by Dr. Miner, is a terrible "sinking at the pit of the stomach. What this sinking is, those only know who have suffered it. All patients speak of it by the same name, but do not describe it further. I suspected it to consist of a certain degree of actual pain, combined with a feeling which is akin to approaching syncope, and spreads from the stomach, as from a centre, over the whole frame. It is a painful and overpowering sensation, as if animal life itself was hurt and lessened."

When any morbid appearances were found after death in the brain, there was some degree of vascular fulness of the brain and also of the membranes, and some serous effusion between the latter and into the ventricles.

Dr. Latham did not consider that the disease was contagious.*

During the winter of 1829-30, this disease prevailed among the galley slaves confined at Toulon, of which a very interesting account is given by M. Fleury. The symptoms were essentially the same as those which we see at the present day, and the changes of structure revealed by the *post-mortem* appearances were likewise similar, consisting in congestion of the meninges, serous infiltration and exudation into the ventricles, the sub-arachnoid space and the spinal canal; congestion of the lungs approaching gray hepatization. The abdomen exhibited also the familiar appearances of cerebro-spinal meningitis.

In 1832, during the winter months, an epidemic pneumonia appeared at Aubin (Aveyron) similar to the same disease which appeared in New York in 1813-15, and which is only another form of cerebro-spinal meningitis, as will be seen when the nature of that epidemic is considered.†

In the same year, Grenoble was again visited by an epidemic similar to that of 1814.‡

In the London *Lancet* for June 10th, 1837, is an account of the spotted fever, which was attended with pneumonic and throat symptoms; there were slight rigors, or they might be absent; malaise, pain in the bones. Next day there was acute pain, commonly in the

* Reviewed in Johnson's Med.-Chir. Review, July, 1825.

† Monthly Journal of Med.-Chir. Knowledge.

‡ Boudin in Arch. Gen. de Med., Avr., 1849.

side, sometimes in the præcordial region, rarely in the epigastrium, darting thence to the shoulder-blades and the intervening space. There were sounds of pleurisy, with pneumonic symptoms. Head-ache existed, frontal, occipital, or general; but it was often absent. There was not, usually, lumbar pain. Sore throat, with redness of the fauces, was often found, though sometimes it was very slight. The face and upper part of the thorax were frequently flushed. There was restlessness; and the bowels were not freely opened, though without pain or tenderness. The patients numbered thirty-eight. The rate of mortality and *post-mortem* appearances are not given.

In another journal, however, this deficiency is partially supplied. In the *London Medical Gazette*, vol. xx., is an account of the disease by Dr. John Wilson, in which the lesions in three cases are given. In two, the body was covered with port-wine-like stains or spots; the blood was fluid and dark in all. In two, the lungs were gorged; in one, there was extensive extravasation of blood into the pelvis behind the peritoneum. In one, he found a large quantity of clear fluid in both lateral ventricles of the brain. These cases occurred in April, May and June, 1837.

The following year, 1838, during the month of February, the same disease was observed, and an account of it is given by Dr. John Burns.

In the *British and Foreign Medico-Chirurgical Review*, vol. xxiii., is a review of a paper by Casimir Broussais on an epidemic of cerebro-spinal meningitis which prevailed among the different garrisons in France from 1837 to 1842.

"It commenced at Bayonne in 1837 among the military, and soon spread into Les Landes, many cases occurring among the inhabitants of the communes surrounding Dax. Thence it extended to Bordeaux, and in the same year to La Rochelle, in both of which places it was confined to the garrison. It then suddenly appeared at Versailles and St. Cloud, where it raged from 1839 to 1842. From Versailles it spread eastward to Caen and Cherbourg in 1840 and '41; westward to Metz, Strasbourg, Nancy, Château Gonthier, Tours, Blois and Joigny, and finally appeared in the neighborhood of Rambouillet. From La Rochelle it reached Poitiers in 1840, L'Orient in 1841, and Ancenis and Nantes in 1841 and '42. In all these places the disease was chiefly confined to the military.

"But while it thus extended in a northerly direction, it also spread among the garrisons to the west of Bayonne, appearing in 1837 at Narbonne and Foix, in 1838 at Toulon, and in 1839 at Nîmes. It prevailed at Avignon in the winter of 1839-40, and again in the following year; at Montbrison in 1840; and at Lyons in the winter of 1841-42. It appeared also at Perpignan in the winter of 1840-41, and the following year at Aignes Mortes.

"The progress of the epidemic was not marked by regularity, nor

did it pursue a steady course from one garrison to another. Occasionally it appeared at a distant point, from which it sometimes returned to places it had passed over, while at other times it remained stationary for a considerable period. In some garrisons the disease did not prevail as an epidemic, but merely a few sporadic cases occurred; in others it appeared to become naturalized and to take an endemic character.

"The disease, as has already been stated, was confined chiefly to the military, but in a few instances extended its ravages also to the civil population; for instance, at Strasbourg in 1841."

Selestat (Bas Rhine) in 1839 was visited by this disease, which seemed to have been introduced by a body of soldiers who had been formerly stationed at Strasbourg, where the disease prevailed. Soon after their arrival, some of the corps were attacked, and then it appeared in the neighborhood of their barracks and afterwards extended to the interior of the city.*

Such is a brief account of the progress of the disease in France during those years. Other countries were also visited by the scourge, as Caivano (Naples) in 1837. Here the principal symptoms were frontal headache, with injection of the conjunctivæ, which was a constant and pathognomonic symptom; general articular pains; loss of appetite, but great thirst; tongue dry, covered with a yellowish coating, and sometimes dark; delirium; subsultus tendinum; constipation; slight increase in the heat of the skin; the pulse small, rapid and hard; petechial eruption over the skin on the seventh or eighth day of the disease; alvine dejections accompanied with lumbricoides; typhoidal symptoms when the eruption appeared early.

Dr. Orofino noticed that the disease ran through regular periods and sometimes terminated by sweats. He considered the critical days to be the fourteenth, the seventeenth, and rarely the twenty-first.†

Various districts in the kingdom of Naples were invaded in the winter and spring of 1840. The disease made its appearance differently in different cases. In some persons the first symptom was a sense of formication, beginning at the feet and extending over the whole body; others suffered from general uneasiness, pain in the head and neck, particularly in the cervical and dorsal region, attended with difficulty on stooping forward or bending the neck. Sometimes the disease was ushered in by an apoplectic seizure, with loss of speech and consciousness, lasting for some hours, and followed by a kind of febrile reaction. Other persons fell down in convulsions, with trismus, the neck being drawn forcibly backward, the whole trunk rigid, spasms of the extremities and efforts to vomit, sometimes without anything being rejected, while at other times the patient would throw up some lumbrici.

* *Encyclographie des Sciences Med.*, 1841, t. vi.

† *Rev. Med.*, t. lxvi., 1838.

"The stage of reaction was accompanied with fever, a hard, quick and frequent pulse, cephalalgia and a painful sense of retraction of the head; the pain in the head increasing in severity, affecting principally the occiput and extending to the neck and along the spine. In some instances the pain in the spine was dreadfully severe, and the sacrum was referred to as the seat of the greatest suffering. When very violent the pain was followed by opisthotonos so complete as to bend the spine into the form of the Roman S. Trismus, difficult deglutition, with disinclination for all drinks, subsultus, a tremulous state of the limbs, existed in the severest cases. The tongue was dry, the teeth were coated with sordes, the patient could scarcely speak. The bowels were costive, and lumbrici were voided by stool, or crept out of the mouth."

On *post-mortem* examination the vessels of the meninges of the brain were found much congested; the thoracic viscera also engorged; the blood dark and liquid, with similar changes in the abdomen.*

In 1840, and again in 1845, Douéra in Algeria was visited by an epidemic in many respects resembling the disease under consideration; it prevailed especially during February and April, 1845.†

In France this disease prevailed more or less in some of the departments from 1843 to 1849. In 1843, in the department of Seine et Marne, and one case is recorded which was observed at Paris; in 1844 in the Haute Loire, and also one case at Paris; in 1847, at Val de Grâce, Avignon and Orleans; again at Orleans in 1848 and also at Versailles, Petit Bourg, Luneville, and Dijon; in 1849, at Val de Grâce again.

It is hardly necessary to give the accounts of each of these epidemics as related by various authors. An abstract of the symptoms and *post-mortem* appearances as described by M. Valleix in his *Guide du Médecin Praticien* will be sufficient to show the identity of the disease with what we now call cerebro-spinal meningitis.

Precursory symptoms were more frequent than in the late epidemic in this country, existing in nearly half the cases, according to M. Tourdes; they were cephalalgia, chills, nausea, and vomiting, pain in the spine and limbs, vertigo, malaise, diarrhœa, delirium, trembling, feverishness; though M. Valleix thinks that most of these ought to be considered not as precursory symptoms, but as phenomena of the settled disease.

Cephalalgia was a constant symptom, sometimes preceding all others and persisting to the end of the attack. It was generally very severe, occupying the forehead usually, becoming more severe towards evening. Pain in the spine was not so constant as the headache, though very frequently seen, especially in the cervical region. The pain extended to the extremities, and there was increase of cu-

* Med. Examiner, N. S., vol. i., 1842, Rev. of account by Prof. de Kenzi.

† Dr. Magail in Rec. de Mem. de Méd., de Chir. et de Phar. Mil., t. lix.

taneous sensibility. The pupils were generally dilated, sometimes contracted; the sight was occasionally lost; the eyes were inflamed. Deafness or abnormal sounds were observed. There was trismus, and cramps of the legs and thighs. M. Forget observed a trembling similar to that of delirium tremens. Paralysis was not common, and was observed only at a late stage of the disease. A delirium almost always existed, sometimes very violent, but usually easy enough to overcome momentarily by questioning. The delirium finally changed to coma. There were nausea and vomiting, loss of appetite, great thirst and constipation, succeeded by diarrhœa; the stools were frequently involuntary. Petechial eruptions occurred, and also herpes labialis.

"Je ne peux m'empêcher de joindre à cette description détaillée un tableau succinct de la maladie tracé par M. Tourdes, parce qu'il résume parfaitement tout ce qui vient d'être dit.

"*Tableau de la maladie.* 'La maladie débute, dit cet auteur, par une céphalalgie cruelle accompagnée de vertiges, de nausées et de vomissements. La douleur se propage à la nuque et au rachis; elle envahit les extrémités, les idées s'égarent, la connaissance se perd; le malade est en proie à une agitation convulsive; la tête est renversée en arrière; la face, rouge ou pâle, offre l'expression de la douleur; la température de la peau est normale ou diminuée; le pouls naturel ou ralenti. Cet état dure jusqu'au troisième jour, époque à laquelle se développent l'éruption labiale, les pétéchie, les taches lenticulaires et les épistaxis; l'urine devient abondante et sédimenteuse, la constipation est opiniâtre.

"Bientôt la connaissance reparait, et avec elle le sentiment des douleurs. Une amélioration légère se manifeste; elle fait naître des espérances qui se réalisent rarement. Les phénomènes cérébraux et rachidiens reprennent leur acuité; la réaction fébrile s'allume, la langue jaunit, rougit et se sèche. La diarrhée succède à la constipation. Tantôt les symptômes nerveux conservent leur violence jusqu'au dernier moment, tantôt ils se calment et persistent opiniâtrement avec une intensité moyenne. Leur marche est entrecoupée des remissions et d'exacerbations. La faiblesse et l'amaigrissement font d'effrayants progrès. La réaction fébrile revêt une forme typhoïde ou hectique, et le malade expire dans le marasme après une tranquille agonie.

"'Si l'issue doit être heureuse, les accidents ne se calment qu'avec lenteur. Une longue et périlleuse convalescence précède le rétablissement de la santé.'"

The duration was sometimes very short, a few hours; at other times very long, eighty or a hundred days before death. When recovery took place, convalescence was long and tedious. The mean duration of fatal cases was fifteen days, of recovery twenty-five days. The disease was usually fatal.

The anatomical lesions were injection of the membranes, deposit

of lymph and formation of pus in various portions of the encephalon and spinal canal, occasionally also softening of the cerebral substance or the cord. In the intestines Peyer's patches were sometimes abnormally prominent, and there were slight traces of inflammation.

At Versailles, lumbricoides were found in almost every case, and were considered as one of the pathognomonic symptoms, but at Strasbourg and other places they were wanting.

M. Lefèvre believed that he found in the muscles a peculiar nauseous odor, entirely *sui generis*.

[To be continued.]

AM IMPROVEMENT IN THE FORM OF PROBES FOR THE LACHRYMAL PASSAGES.

[Read before the Boston Society for Medical Improvement, July 9th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By HENRY W. WILLIAMS, M.D., Ophthalmic Surgeon of the City Hospital, Boston.

As is well known to the profession, great advance has been made, of late years, in the treatment of affections of the lachrymal passages. It is now rarely allowable, in inflammation of the sac, to permit of its going on to the formation of an abscess requiring vent by either a spontaneous opening or the use of a lancet; for the distended sac may be evacuated, at any stage of the inflammation, by the introduction of a fine probe through one of the natural orifices, thus bringing the lachrymal canal into a straight line and allowing the escape of the contents of the sac. So, also, in obstructions of the nasal duct, the canula and the style have been wholly superseded by the use of probes of larger and larger calibre—one of the puncta being slit open for a short distance to allow their passage into the sac and thence through the ductus ad nasum.

It has been customary to bend Bowman's probes to such a curve as to adapt them to the presumed direction of the nasal duct in each individual; but I have seen false passages formed where undue violence had been employed in their use—and, at best, the mucous lining of the sac or canal was often torn or abraded by the unyielding extremity of the probe, causing considerable hæmorrhage and giving rise to irritation which retarded the cure.

I have found great advantage in using probes made with bulbous extremities of the six sizes of Bowman's scale, but very slender for some distance from their ends; so that the whole of that part of the instrument, without being unduly flexible, has an elastic pliability, enabling it to adapt itself to any sinuosities of the passage, and to find a route through the obstructions without laceration or contusion of the parts.

Bibliographical Notices.

The Restorative Treatment of Pneumonia. By JOHN HUGHES BENNETT, M.D., F.R.S.E., Professor of the Institutes of Medicine, and Senior Professor of Clinical Medicine in the University of Edinburgh, &c. &c. Third Edition. Edinburgh: Adam and Charles Black. 1866. 8vo., pamphlet. Pp. 110.

THE object of the author in this pamphlet is the commendable one of presenting to the medical profession in the fairest manner the result of his method of treatment of pneumonia, in the hope of leading them to adopt it in preference to other methods. This plan is the restorative one, which the author sets forth in the following extract:—

“If the resolution of a pneumonia simply consisted of a retrograde process—of a so-called necrosis of the exudation—an antiphlogistic practice, by favoring it, might be expected to relieve the lung rapidly and cure the disease. But my conviction, that such removal was dependent upon vital processes of growth, led me to an opposite treatment, viz., never to attempt cutting the disease short, or to weaken the pulse and vital powers, but on the contrary to further the necessary changes which the exudation must undergo in order to be fully excreted from the economy. To this end, during the period of febrile excitement I content myself with giving salines [by which the author means small doses of the acetate of ammonia, with $\frac{1}{24}$ of a grain of tartar emetic] in small doses, with a view of diminishing the viscosity of the blood. At the commencement of the treatment I order as much beef-tea, milk, and other nutrients as can be taken, and as soon as the pulse becomes soft, solid food, and from four to eight ounces of wine daily. As the period of crisis approaches I give a diuretic, consisting of half a drachm of nitric ether, and sometimes ten minims of colchicum wine, three times daily, to favor the excretion of urates. But if crisis occurs by sweat or stool, I take care not to check it in any way. I do not consider that the salines and diuretics do more than assist the natural progress of the disease. The essential part of the treatment consists in the rest, nourishment and support given to the body throughout.”

This method gives the surprising result among all the cases of acute pneumonia, complicated and uncomplicated, treated by the author in the Royal Infirmary with which he is connected, of only 1 death in 32 $\frac{1}{2}$ cases; while of the cases of uncomplicated pneumonia, 105 in number, not one died.

Dr. Bennett goes on to contrast this remarkable result with the results of treatment by bleeding, large doses of tartar emetic, the expectant or dietetic treatment, mixed treatment, treatment by iron and copper, and by stimulants; showing a mortality ranging from 1 in 18 up to 1 in 3 $\frac{1}{2}$ cases. He sums up his conclusions in the following results, which he claims to have distinctly proved:—

“1. That an extreme antiphlogistic treatment has always been attended with a large mortality, amounting to 1 death in 3 cases; but that when modified in various ways—that is, by diminishing the amount of lowering remedies, selecting cases, or by the cases being

those of young and vigorous subjects—the mortality varies from 1 death in $4\frac{1}{2}$ to 1 death in 13 cases.

“2. That when one half the cases are those of children, or persons below twenty years of age, and the lowering treatment slight, the mortality diminishes to 1 death in 28 cases.

“3. That a treatment by large doses of tartar emetic has been accompanied by a mortality varying from 1 death in $4\frac{1}{2}$ to 1 death in $9\frac{1}{2}$ cases.

“4. That a dietetic or expectant treatment has been followed by a mortality varying from 1 death in $7\frac{1}{4}$ to 1 death in 10·9 cases. In children, according to Barthez, the mortality is almost *nil*.

“5. That the results of a mixed treatment, in which various remedies have been employed, according to the nature of the case and the stage of the disease, are a mortality varying from 1 death in $3\frac{1}{2}$ to 1 death in $13\frac{2}{3}$ cases.

“6. That a tonic treatment with iron and copper, according to Kissel, was attended with a mortality of 1 death in 22 cases.

“7. That a treatment by stimulants, according to Todd, was followed by a mortality of 1 death in 9 cases.

“8. That the restorative treatment of the author having been attended, in the worst point of view, by a mortality of only 1 death in $32\frac{1}{2}$ cases, is the most satisfactory yet published. But when it is considered that the four deaths resulted from pathological complications unconnected with the pneumonia, this treatment may be said to render the mortality in true cases of pneumonia *nil*.

“9. That 105 uncomplicated cases, occurring consecutively in the clinical wards of the Royal Infirmary when under my care, during a period of sixteen years, should all have recovered, is a fact which can only be ascribed to the nature of the treatment, as is shown by contrasting the results of that treatment with those of a lowering, expectant, mixed, or specific practice.

“10. That just in proportion as other treatments approach the restorative principle, and avoid lowering the system, so much the greater is their success. It will further be observed that even where a direct lowering practice has been avoided, if the diet has been restricted, or opium largely given, or digitalis, alcohol, or other drug, tending to weaken the system and diminish appetite employed, no great advantage has been arrived at. So that—

“11. The variations which appear to follow the same treatment by different physicians are explicable by the amount of weakness in the patient, or circumstances in the treatment causing weakness, such as low diet, bleeding, tartar emetic, narcotics, &c. &c. It follows that supporting and restoring (not stimulating) the nutritive powers of the system, and avoiding all weakening remedies, ought to constitute the practice in pneumonia.”

Dr. Bennett also gives an account of the pathology of pneumonia, answers in detail the various objections which have been urged to his method of treatment, gives a table of 129 cases treated consecutively in the Royal Infirmary, in which all the important points in the history and management are given in each, and adds an Appendix of twelve specimen cases written out in detail, illustrating his manner of adapting his remedies in the individual instances. The author deserves the

thanks of the medical profession and of the community at large for his lucid and logical exposition of the superiority of his mode of treating this severe disease. We think that he will find not a few, in our most enlightened communities, however, who will recognize in his system a codification, as it were, of the instinctive principles which of late years have brought them more or less near to his plan in their treatment of these cases. We certainly can testify from our own experience to the happy results of a treatment of a very similar character.

Why Not? A Book for every Woman. The Prize Essay to which the American Medical Association awarded the Gold Medal for 1865. By HORATIO ROBINSON STORER, M.D., Assistant in Obstetrics and Medical Jurisprudence in Harvard University, &c. &c. Boston: Lee & Shepard. 1866. 16mo. Pp. 91.

THIS little book sets forth in earnest and forcible language the many evils of induced abortion. It explains the true nature of this two-fold offence, exposes its dangers to the health and even the life of the mother, and combats the various arguments and pretexts by which it is defended or excused. Although the impression has become quite general that this crime is of very common occurrence in the community, we cannot believe it to be so general as some, whose special practice is the most likely to bring them into cognizance of it, are led to believe. However this may be, it is nevertheless certain that the moral and physical evils which it entails can hardly be exaggerated; and nothing said in condemnation of it, or for the purpose of enlightening and warning those who, in ignorance of its serious consequences, may be tempted to practise it, can be supererogatory. To accomplish this object Dr. Storer's essay must serve an excellent purpose; although we greatly fear that those for whose special warning it is intended will too often turn a deaf ear to his appeal, preferring to be guided by the assurance of impunity from those by whose advice they are tempted to its commission. We could have wished that the title had been more in keeping with the professional subject of the book. It will be likely to excite curiosity among those who are too young to need to have the subject presented to their minds: and who, in our estimation, had better not know anything of such things until maturity of years or the marriage relation has drawn aside the veil with which we should prefer to keep them enshrouded.

Materia Medica; for the Use of Students. By JOHN B. BIDDLE, M.D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College, Member of the American Philosophical Society, Fellow of the College of Physicians, &c. &c. With Illustrations. 8vo. Pp. 359. Philadelphia: Lindsay & Blakiston.

THIS is the second edition of the author's well-known *Review of Materia Medica*, revised and enlarged and adapted to the last edition of the United States Pharmacopœia. It is designed principally as a text-book for medical students, but will be found of use by practitioners of medicine as well, giving as it does, in a concise form, the most important facts concerning the principal articles of the *Materia*

Medica commonly employed in this country. We have opened its pages in many places, and find that the remedies of most recent introduction and the new applications of articles long known are faithfully recorded. The book is printed on large type, the wood-cuts are quite respectable, giving in general a very good idea of the plants figured, and as a whole we think it is calculated to serve a very useful purpose. A very copious index is appended to it.

Descriptive Catalogue of Fluid and Solid Extracts in Vacuo; also Concentrations and Official Pills. Prepared by Henry Thayer & Co. With Formulas and Receipts. Cambridgeport. 1866.

Most physicians of late years, as a matter of convenience, have made more or less use in their practice of the fluid extracts. The advantages which they present, of uniformity of strength, durability and concentration, commend them strongly to both practitioner and patient. We have been in the habit of prescribing those by Messrs. Thayer & Co., and can testify from personal experience to their general reliability. Any one employing them, however, needs a catalogue of these preparations, and we have carried for years in the pocket of our Visiting List a little pamphlet of this description. The elegant volume before us gives a more extended account of the fluid extracts of Messrs. Thayer, with directions for preparing the various preparations from them which druggists may require, such as tinctures, infusions and the like. A catalogue of a variety of sugar-coated pills prepared by the same manufacturers is added, also a full dose-list of their fluid extracts; and a complete index finishes this elegant duodecimo volume of 218 pages. It is printed on tinted paper, by Messrs. Rand & Avery, of Boston, in the highest style of art. Physicians will find it a very great convenience.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 30, 1866.

CENSORIAL DUTIES—MEDICAL EDUCATION.

SUMMER vacations are nearly gone, and physicians and students are returning to the long season of work before them refreshed, we trust, by this interval of rest, however brief it may have been to the former. Students, too, are finding that their course of studies is extending year by year, and that four months of attendance upon lectures and eight of independent study no longer answer the requirements of a first rate medical education. Indeed, it will not be long, we hope, before there shall be no distinction between the so-called summer session and the winter term, and three years of constant attendance at some regular school shall alone entitle to an examination for the degree of Doctor of Medicine. A longer curriculum than this, extending over at least four years, as recommended in the recent admirable address of Dr. Shattuck before the State Medical Society and by the Committee on Medical Education of the American Medical Association, would

of course be better, and is as necessary to the acquirement of a thorough scientific training here as in European States; but with our present system of licensing bodies and independent schools it could only be introduced by universal adoption. Not until the profession throughout the country shall awake to the deplorable deficiencies of our present system and shall insist upon the establishment of some uniform standard, either through the general government or our National Association, can medicine in America raise itself to a level with that of foreign countries, or even with other branches of learning at home.

Very little can be accomplished in this direction by any one school, however desirous its government may be of reform: for any unusual severity in its examinations or length of study required would turn its students to other and easier places and prove its own ruin. How, for instance, would the cause of medical education be advanced if Harvard University, always foremost in such efforts, should refuse a degree until after four years' study under its own instructors, while the Medical Department of Yale College continues to confer the same right to practise upon any graduate of a college at the end of two years only, and issues a circular containing such a statement as this: "Experience has shown that a large proportion of the whole field of medical investigation, embracing most of the important topics, can be comprised in a single course of lectures, by avoiding that extreme variety of subjects and minuteness of detail, which are so apt to confuse and oppress the mind of the learner, and render the knowledge acquired superficial and vague, rather than clear, definite and well fixed." When an institution of this rank so lowers the tone of scientific study, what can we expect of the great number of private schools all over the country licensed to make doctors by State legislatures? Something can be done in the opposite direction by filling up the three years with instruction, increasing the facilities for clinical observation and by special teaching, and a few schools have already largely increased their ranks and usefulness by such means.

In the absence of a general and central power to control the selfish and money-making spirit of some schools and to equalize and elevate the standard of medical education in all, it is evident that the profession must for the present protect itself. Fortunately we are able to do so in this State, at least to a considerable extent. If Yale College changes a boy into a physician after two years of study, the Massachusetts Medical Society can refuse to recognize him as such, just as she prevented Harvard University from shortening her curriculum four months. In the same way we can do much to raise the character of our body and compel the schools to adopt a higher system of requirements by a more rigorous examination at the board of censors. There is no doubt that students are sometimes allowed to pass at every medical school in the country who are not properly fitted to practise medicine, and that the examinations for degrees are by no means so severe as they should be, for fear that the popularity of the school may suffer. This cannot be avoided, we fear, even in the very best schools, so long as professors look to the sale of tickets for remuneration. Certainly many graduates present themselves for admission to our State Society who ought never to have received a degree, and who, in the judgment of one board of censors at least, should not be received by the Society. That every person offering himself for membership

should be thoroughly examined in the present state of the Schools, no physician who cares for the standing of his profession can doubt, nor should any exceptions be made in favor of any set of graduates; all should be placed upon the same footing. It is very desirable, however, that a uniform system of examination throughout the State should be adopted, and that more definite instructions on these points should be given to the boards of censors, for it is evident that great inequality must prevail, according to the individual opinions of these officers at different periods and localities, and that a candidate might fail in one district and easily pass in another. We believe it would be still better for the interests of the profession if a properly selected State board of examiners were appointed, as in Great Britain, by whom all candidates should be examined, and who should report upon the training of students from the various schools. In this way a powerful and beneficial control would be indirectly established over licensing bodies, and fewer unfitted students would receive the degree of doctor of medicine.

A communication touching upon this matter was presented to the Council at the annual meeting of the State Society, and other representations are to be laid before this body, we believe. We trust it will receive the careful consideration its important nature demands.

Death of Dr. Nathan Hayward. Messrs. Editors,—Dr. Nathan Hayward, of this city, late of Roxbury, Mass., died of cholera on Friday evening, 17th inst., aged 35 years.

He had been unwell for several days with the usual premonitory diarrhœa, but continued to perform his professional duties up to the hour of the fatal seizure on Wednesday night. Late Wednesday evening he visited a patient with cholera at some distance from his office, and was himself attacked while on his way home. Although but a few months a resident of St. Louis, he had laid the foundation of a career of very varied and extended usefulness, while the void left by his sudden death has revealed to his many new friends how important a place he already filled in their affections.

The *St. Louis Democrat* contains the following notice of Dr. Hayward, by a non-professional friend:—

“The funeral of Dr. Nathan Hayward, an esteemed member of the medical profession in our city, who died on Friday night last of cholera—a martyr to his sense of professional duty—took place yesterday afternoon, from Dr. Eliot’s church, on Olive Street, to Bellefontaine cemetery. Dr. Hayward was known to the profession and to a large class of our leading citizens, to whom he had greatly endeared himself during his brief residence among us by his many most estimable and noble traits of character. He was a profound thinker, thoroughly posted in modern systems of philosophy, and had recently been elected a member of the Philosophical Society of St. Louis, where he was beginning to wield the influence of an honest and potent intellect, and of a culture the fruit of which was seen in the nobility of his personal character. He was not, however, an idolator of intellect, but found his greatest happiness in practical enterprises of a benevolent character, looking to the elevation of the poorer and humbler classes of society, and the good of his fellow men. As a physician, he had laid

the foundation of great usefulness, and gave promise of great success. Dr. Hayward formerly resided in Boston, whence he came to this city at the close of the war, during which he served his country with fidelity as surgeon of the 20th Massachusetts infantry. He died in the thirty-sixth year of his age, the death of a brave and righteous man."

St. Louis, August 20th, 1866.

J. G.

Fourteenth Annual Meeting of the American Pharmaceutical Association.—The fourteenth annual meeting of this Association took place on the afternoon of August 22d, in the Supreme Court Room, in the city of Detroit, Mich., the President, Henry W. Lincoln, of Boston, in the chair. A very large number of delegates were present, representing nearly all the pharmaceutical associations and colleges in the United States and the Canadas. A large number of persons, residing mainly in the Western States, were proposed and elected members of the Association.

The reports of the Recording Secretary and the Executive Committee were presented by Prof. John L. Maisch, of Philadelphia.

The day's proceedings were confined to the transaction of unfinished business laid over from the last session, the adoption of various amendments to the constitution of the Association, and the discussion of various matters pertaining to the regulation and interest of the Association, which are of little or no importance to the public.

The President, Henry W. Lincoln, of Boston, presented his annual report, showing the Association to be in a highly prosperous condition and largely increasing in numbers.

The report contained many suggestions and statements of great interest, not only to the pharmaceutical profession but to the public at large, which will be noticed at length when the committee to which it was referred to consider them and report what action is necessary with regard to them, present them for the final disposal of the Association.

A large number of invitations were received to visit places of interest in the city and vicinity, which were accepted, and the thanks of the Association returned therefor.

A committee, consisting of one delegate from each pharmaceutical association and college represented in the Association, was appointed to nominate officers for the ensuing year, after which the convention adjourned to the next morning at nine o'clock.

Nearly all of the delegates present are at the Russell House, and this evening the pharmacutists of this city visit them in a body to welcome them to Detroit, and the evening will be spent in social intercourse.

SECOND DAY.—The convention met this morning, according to adjournment, at nine o'clock.

The committee appointed to nominate officers for the ensuing year, nominated the following gentlemen, who were unanimously elected:—*President*, Frederick Stearns, of Detroit. *Vice Presidents*, Prof. Edward Parish, of Philadelphia; E. H. Sargent, of Chicago; Geo. W. Shedden, of New York. *Treasurer*, Charles A. Tufts, of Dover. *Permanent Secretary*, Prof. John M. Maisch, of Philadelphia.

The various standing committees provided for in the constitution were also appointed.

Mr. Stearns, on being conducted to the chair, thanked the Association for the honor conferred upon him, and in behalf of the druggists and pharmacutists of Detroit officially welcomed the Association to that city.

On motion of Dr. E. R. Squibb, of Brooklyn, the thanks of the Association were returned to the retiring officers for the ability and faithfulness with which they had discharged their duties.

The committee appointed to prepare a list of scientific queries to be investigated and reported upon at the meeting in 1867, presented, through Prof. William Procter, of Philadelphia, a list of twenty-seven queries, which were adopted and referred for publication.

Dr. E. R. Squibb, from the Permanent Committee on the Pharmacopœia, presented a criticism on the process of the Pharmacopœia for obtaining fluid extract of buchu, and a new and improved method of producing this extract.

A paper on "Pharmaceutical Business—its management," was presented by the President, Mr. Stearns, of Detroit.

Other papers and essays were read by Mr. Geo. C. Close of Brooklyn, Prof. William Procter of Philadelphia, Edward C. Jones, A. E. Eibert of Chicago, Thomas Doliber of Boston, and Dr. W. H. Pile of Philadelphia.

In the afternoon, the convention was called to order at 3 o'clock.

Dr. E. R. Squibb, of Brooklyn, presented the report of the Committee on the Internal Revenue Law. At the last annual session a committee of five was appointed to take into consideration the whole subject of the internal revenue law in its relations to the objects of the American Pharmaceutical Association, with special reference to the alcohol question, with authority to confer with the Committee of Ways and Means of Congress and the Commissioner of Internal Revenue, said committee to report at this meeting of the Association.

In accordance with this resolution, a communication was addressed to Hon. David A. Wells, Chairman of the Commission on Internal Revenue, notifying him of the appointment of the Committee, and tendering its assistance in any way, pertaining to the revenue law in its relations to the pharmacutists and druggists, that the Commission might desire. Being engaged upon a revision of the revenue law, the offer of the Committee was gladly accepted by the Commission, and the Committee was invited to a full and free discussion of the subject. Various interviews and a lengthy correspondence took place between the Committee and the Commission, and the whole subject was elaborately and critically examined. The labors of the Committee were mainly directed to procure a removal of the duty on alcohol when dispensed by apothecaries as medicine and when used in the manufacture of medicines according to a recognized dispensatory, and, secondly, to either reduce the duty on the manufacture of such medicines or increase it upon patent medicines. Various arguments were offered in support of these propositions, and a rough draft was made of such a law as in the opinion of those represented by the Association would be most beneficial to the trade and the public, and also result in an increased revenue. In regard to the first point, the Commission agreed with the Committee that alcohol for medicines

made according to a formula contained in any standard dispensatory should be exempt from duty, and recommended to Congress a modification of the law in this respect. This proposition was defeated in Congress. On the second point, the Commission recommended the changes asked for by the Committee, and they were incorporated into the law, making the tax bear more heavily upon patent and proprietary medicines than upon standard medicines.

The report was very elaborate, and included a detailed statement of the correspondence and interviews between the Committee and the Commission.

The following resolution, appended to the report, was passed :—

Resolved, That the President of the American Pharmaceutical Association be directed to express the thanks of the Association to the Internal Revenue Commissioners for the years 1865 and 1866, for the favorable attention given to the interests and desires of the Association as evinced in the internal revenue law.

The convention also tendered a vote of thanks to the Committee. After the reading of several scientific papers, the convention adjourned.—*Daily Advertiser*.

Cholera on Blackwell's Island.—The following account of the epidemic in this locality, by Prof. Hamilton, will be read with interest.

No. 64 MADISON AVENUE,
NEW YORK, Friday, Aug. 10, 1866. }

E. Harris, M.D., Corresponding Secretary, M. B. H.:

SIR: The first case of cholera occurred in the Workhouse on the 28th of July; the last case on the 6th of August. The epidemic continued, therefore, nine days, during which period, of about 800 inmates, 123 died. I do not mention one case reported on the 8th of August, because, as I understand, the person was admitted only the night before; I do not think the disease was contracted in the Workhouse.

You know the building very well. It is admirably constructed for the purposes for which it is designed, and, so far as my observation extends, it is always perfectly clean. Until now, the inmates have been as healthy as this class of people are usually found to be.

The explanation of the rapid propagation and fatality of the disease after it had once gained admission, was believed to be mainly confinement and crowding. It was observed that the cholera was for several days exclusively among the women. The women had the smallest apartments, were most crowded in their cells, and, with few exceptions, were employed within the building in close contact with each other during the day. The men were employed mostly in the quarries, out doors.

On Wednesday, when the epidemic was at its height, the first of August, I gave my pledge to the Board of Commissioners and to Mr. Schultz, President of the Board of Health, in your presence, that I would drive the cholera from the Workhouse in from three to five days. I said this in no spirit of boasting, but in simple reliance on the well-known and established laws of Hygiene. The Commissioners executed literally and promptly every order which was given by the Committee.

The epidemic began to decline from the day they were fully carried out, and on Monday last the pledge was redeemed. The following is a summary of the sanitary means adopted :

The inmates were distributed as far as the vacant places in the building would permit; the cell doors were left open at night; the night-buckets were supplied with disinfectants and left outside; the women's cooking rooms were converted into hospital wards, and the women were kept out of doors from morning until night; corn meal and molasses were taken from the diet table; coffee, tea, and vegetables were added; at night each inmate was required to take whisky one ounce, water three ounces, tincture of capsicum fifteen drops. [These people are our city vagrants, and probably are habitually intemperate.] A variety of disinfectants were employed freely and constantly in every vessel and closet which received the excreta, even the excreta from the stomach were disinfected immediately after they were received into a vessel or fell upon the floor; stoves were placed in each hospital ward to insure a draft; all windows were kept open night and day; the clothing taken from cholera patients was sent directly to the boilers; a ward was established for patients with the diarrhoea, and the value of this measure is shown by the fact that of the large number received into this ward only one died. It was difficult, however, to persuade these poor creatures to report themselves at this stage of the disease.

From the Workhouse the cholera has spread to every other building on the Island, except, I think, to the "Madhouse," the pavilion attached to the Male Almshouse and the Fever Pavilion. In none, however, has it proved so fatal as in the Workhouse.

The same sanitary measures have been adopted, with slight modifications, in each department, but they cannot be applied with so much vigor to the Lunatic Asylum, the Almshouse, or the General Hospital. These buildings are all crowded, and the inmates cannot be scattered or turned out of doors; consequently, the cholera remains among them, but in a greatly mitigated form. In the Penitentiary it remained but two days.

Connected with the Almshouse are two well-constructed pavilions, lying side by side, separated only by a few feet and a brick wall 10 or 12 feet high. One is occupied by feeble old men, the other by the same class of old women. The only point of difference which I can discover is, that at the time of the outbreak of the cholera, the male pavilion contained only 62 persons, while the female contained 99. In the first there has not been one case of cholera, in the second 31 have died.

Of 14 house-physicians and surgeons employed in these several buildings, some of whom have been in constant attendance upon the sick, not one has suffered from the epidemic.

Very respectfully yours,

FRANK H. HAMILTON, M.D.

Medical Intelligence.—An International Medical Congress at Paris, in connection with the exhibition of 1867, is proposed, under the direction of a central committee consisting of MM. Barthez, Broca, Louget, Robin, Tardien and others. The plan of procedure will be announced hereafter, and the support of the medical press of all countries is desired.

A Baronetcy has been conferred by the Queen upon Dr. Watson, President of the Royal College of Physicians.

Dr. John Young, F.R.S.E., has been appointed to the chair of Natu-

ral History in the University of Glasgow, vacant by the death of our countryman, Professor Rogers.

Prof. Van-Beneden, of Louvain, has been appointed to the vacant place among the corresponding members of the Académie des Sciences in the Section of Anatomy and Physiology. The other names proposed for the honor were Filippi, Huxley, Leuckart, Pictet, Sass, Siebold and Vogt.

A case of death upon the operating table from fear of lithotomy is reported in the *Gazette des Hôpitaux* by M. Cazenave. The patient, who was a distinguished veterinary surgeon, fainted while in the hands of the assistants, and died in ten minutes.

The number of wounded in Vienna is so great that a wing of the palace at Schönbrunn has been devoted to the reception of officers, and the hotel-keepers have volunteered to care for a certain number in their houses gratuitously.

A recent number of Virchow's Archiv contains a highly interesting article by Landois, of Greifswald, on sudden blanching of the hair. The possibility of such an occurrence has been doubted by many, if not all eminent dermatologists of the present day, although several well-known instances are recorded in history. This question is now settled beyond any doubt by observations made by the author upon a case in Prof. Mosler's clinic. The patient was 34 years old, and was received at the hospital on account of delirium tremens. At the morning visit, on the fifth day of his stay, it was noticed by the visiting physicians and the patients that the hair upon his face and head had become gray. On looking at himself in a mirror, he exclaimed:—"Ach Gott, mir sind die Haare grau geworden!" Strange to say, the delirium vanished at the same time. A microscopic examination showed the presence of a great many minute air-bubbles at the white points, both in the cortical and central portions of the hair. The pigment was perfectly preserved throughout the whole shaft of the hair, and had undergone no change whatever. As the hair gradually is changed to gray the pigment disappears, but in this instance the rapid whitening during a single night was produced by the development of gas within the substance of the hair.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 25th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	44	66	110
Ave. mortality of corresponding weeks for ten years, 1855-1865	51.2	49.4	100.6
Average corrected to increased population	00	00	110.56
Death of persons above 90	0	0	0

DEATHS IN BOSTON for the week ending Saturday noon, Aug. 25th, 110. Males, 44—Females, 66. Accident, 2—aneurism, 1—disease of the bowels, 1—congestion of the brain, 2—disease of the brain, 3—inflammation of the brain, 2—bronchitis, 2—cholera infantum, 14—cholera morbus, 1—consumption, 16—convulsions, 1—croup, 1—cystitis, 1—diarrhea, 2—diphtheria, 1—dropsy, 2—drowned, 2—dysentery, 14—epilepsy, 1—scarlet fever, 2—typhoid fever, 1—disease of the heart, 5—infantile disease, 3—disease of the kidneys, 1—inflammation of the knee, 1—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 2—marasmus, 4—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 1—rheumatism, 1—scrofula, 1—disease of the spine, 1—tabes mesenterica, 1—teething, 1—ulcers, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 45—between 5 and 20 years, 6—between 20 and 40 years, 28—between 40 and 60 years, 19—above 60 years, 12. Born in the United States, 73—Ireland, 35—other places, 2.

THE

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No. 6.

CASES READ BEFORE THE MIDDLESEX SOUTH DISTRICT
MEDICAL SOCIETY.

By G. J. TOWNSEND, M.D., of South Natick.

[Communicated for the Boston Medical and Surgical Journal.]

CASE I.—*Urachus pervious after Birth.*—Many years ago, while residing in South Carolina, I was asked to see a little negro five days old, of mixed parentage, and was told he was passing his water through his belly. On inspection, sure enough, every time the infant cried, or made any great exertion, the urine bubbled freely from the umbilicus. The cord had separated normally, and the child was in every other respect vigorous and healthy. There was very evident ulceration of the surface, left by the separation of the cord. The question whether the urethra was pervious was solved at the time of the visit in the affirmative, a fair stream spirting forth *per vias naturales*.

The presence of ulceration at the orifice of the abnormal duct rendered the process of obliterating it very simple. The ulcerated surface was freely cauterized, and the edges of the opening were brought into close apposition and kept there by a strip of adhesive plaster, firmly applied in a longitudinal direction. This was still further secured by a compress of cork covered with wash leather, and kept in place by being stitched to a close-fitting swathe.

The presence of ulceration in this case may be thought to have some bearing upon the question as to the manner in which the cord separates, whether by a process of ulceration or absorption. But the ulceration was evidently an accident here, and caused by the acrid fluid passing constantly over a new and delicate surface, and was healed at once by the arrest of the flow. The patient was well in four days, when the swathe was removed.

Cases of this kind are believed to be very rare, the urachus shrivelling up in the human fetus in the earlier stages of foetal life. Instances are referred to by Wilson, Erichsen, and others, of its remaining pervious till birth, and of the existence of calculi in it. I

have not been able to get a full description of any of the cases, and this is the only one I have ever seen.

CASE II.—*Arrest of Development.*—Jan. 11th, 1853, I delivered a healthy woman, a native of Nova Scotia, of a female child. There was nothing noticeable in the labor, and during the period of gestation she reported a usual degree of health, and was not expecting any marks upon her child.

The infant was generally well developed, weighing about eight pounds. On tying the cord, a soft, bulging tumor was noticed, occupying the præcordial region. It was found, on examination, that the ribs over the whole of the left side of the thorax were wanting, with the exception of the first and second ribs, which were entire. The scapula was perfect. The deficient ribs were represented by short rudimentary processes, projecting from the spine, and affording no support whatever to the thorax. In consequence, the stomach and intestines, more or less distended with gas, pushed the diaphragm up and formed the tumor, displacing the heart and left lung, and causing the apex of the heart to be well towards the median line, and directly under the second rib. The left mammary gland was wanting, or, at all events, there was no nipple. Under these circumstances, the life of the child seemed doubtful. At last accounts, however, some time during the past summer, she was alive, being over 12 years of age, and tolerably well, though a little puny and delicate.

I contrived for the support of the chest as good a set of artificial ribs as I could, in the shape of a waist carefully stiffened with whalebone, and some such contrivance she still wears.

CASE III.—*Transposition of Thoracic Organs.*—A pale, sickly-looking boy of 14 years applied to me on account of cough and general debility. On applying the ear to his chest, his left lung was found filled with hard tubercles from apex to base, and no sounds of the heart were heard on the left side, save those transmitted through the lung. On the right side, the heart was found pulsating normally, the apex being between the fifth and sixth ribs, and dulness extending over the usual extent of surface, from the fourth to the seventh ribs. Nothing positive could be learned by a careful examination of the abdomen, except that the edge of the liver was distinctly felt on the left side, and it was considered probable that the abdominal organs were transposed as well as the thoracic.

The youth lived to be 17, died of phthisis, and no inducement could lead his mother to allow an autopsy. *He was left-handed.*

CASE IV.—*Esthiomene of the perforating Variety.*—The patient was a young girl, 15 years of age, in comfortable circumstances, sufficiently well developed, but of a decidedly strumous cast of expression and feature. Her mother was healthy. Her father died before I knew the family, of some obscure disease, probably tubercle, as he was noted for his extreme emaciation, for some time before his death.

The patient's disease was described to me as commencing with a series of hardened tubercles, six or seven in number. This stage had passed before I saw the case. At first the disease had caused but little inconvenience, and with natural delicacy the patient had kept it to herself, until it rapidly increased in severity, causing considerable pain. She then mentioned it to her mother, who immediately sent for medical aid.

On separating the labia, the ulcers were plainly seen, six or seven in number, the uppermost and largest one near the superior commissure, above the clitoris; while the lower had taken out a semilunar portion of the hymen, involving most of the left half of the membrane, the rest being intact. These ulcers presented a very peculiar and characteristic appearance. They were irregularly ovoid in shape, with sharp, well-defined edges, and red, angry-looking base, and were very sensitive to the touch, as were the surrounding tissues, the examination causing considerable pain. There was no marked tumefaction of the sound parts, and the ulcers seemed to have no tendency to spread, except in depth.

The aspect of the patient exhibited no particular cachexy, though the health was evidently giving way, and the muddy complexion, the long lashes, the glistening conjunctiva, the tumid upper lip, showed plainly enough the constitutional taint. The patient had menstruated regularly.

The treatment was conducted on general principles, as little could be gleaned from authorities upon the point. Bennett barely mentions the disease as rare, and others say nothing about it. The ulcers were first freely cauterized, the pencil of the nitrate being applied very thoroughly to their base and well under their edges. The application caused severe pain, which was at once relieved by bathing well with cold water. A saturnine dressing was then applied—Goulard's extract and cream, one part to sixteen, and directed to be used twice a day, after bathing in warm water. If any irritation was felt, the cream was to be applied more frequently. The iodide of potash was given internally, in doses of four grains four times a day, and a generous diet—milk, eggs, fresh meat and fruit, as much as the stomach would bear—was advised. The patient was kept very still at first, and as the healing of the ulcers progressed gentle exercise was allowed. The result was satisfactory, with one slight relapse only, from neglect of treatment probably; and in less than two months from the beginning of treatment, the patient was well. The disease had existed at least a fortnight before I saw it.

With regard to the diagnosis in this case, there is no disease it could be mistaken for, except syphilis, and I must confess at first sight the ulcers bore a marvellous resemblance to chancres. The points of difference were, first, their situation. Syphilitic ulcers from impure connection occur on the os, in the vagina, or at the orifice of the vagina. Here the hymen, to be sure, was partly implicated, but the

membrane was otherwise entire, and could never have been broken down by coitus. According to the popular idea, the ulcers might possibly have been produced in their situation by contact with a contaminated water-closet, though I will confess to some degree of scepticism as to the frequency of such an agency in the spread of venereal diseases.

Next, the ulcers had sharply defined edges, but they were not in the least elevated. They were simple deep excavations, as if cut out with a die. The bases, too, were florid and red, with an angry, inflamed aspect; very different from the ashy-grey look which characterizes a true chancre. Their bases, moreover, were soft, giving way readily under the boring with the pencil of the nitrate, and were not in the least indurated.

From the superficial chancre, the distinction was marked by the great depth of these ulcers, the deepest being at least two lines.

I will add that I have since had a case of lupus, to which the above disease is evidently allied, occurring in a young girl upon the face, where the ulcers were very similar, and yielded to the same treatment. They were, however, much more chronic and obstinate in their course.

CASE V.—*Rupture of the Uterus.*—This patient was an Irishwoman, 33 years of age, of rather hale aspect and lymphatic temperament, though sufficiently healthy, and of good muscular development. She was in labor with her seventh child, and I was called to her late on Christmas night. There had been nothing peculiar in any of her previous labors, and they had been of no more than average severity. I found her pains regular and efficient, and after two hours' attendance the head had passed the superior strait and was beginning to distend the perinæum, giving every promise of a speedy and safe termination of the case. When I left the bedside for a few moments, and in the midst of a pain, she commenced screaming in the most agonized manner. For some minutes, until her breath was exhausted, this was continued, and then she exclaimed to me, while making an examination, "the child has gone away from you, Doctor!" Sure enough, I found the head had receded above the brim, and the defined uterine tumor was no longer to be felt in the abdomen. The state of the case was apparent at once, and calling her husband, I told him the accident and almost certain result. I requested further medical aid, my nearest professional neighbor being two miles off. Giving the patient an opiate, I left her a few minutes, to procure ether and instruments. On returning, I found all parties more intent upon getting the priest than a doctor, and consequently proceeded to deliver her unaided.

The forceps could not be applied, as there was nothing to fix the head, but the delivery was easily accomplished by turning. The child was dead, and was delivered in less than half an hour after the occurrence of the accident. The placenta was also easily extracted,

and then the seat of the lesion was distinctly made out. The rent was longitudinal, on the right side, at the edge of the placental attachment, directly over the sacro-iliac synchondrosis, and was at least six inches in length. The case terminated fatally in less than twenty-four hours.

On careful questioning, I found she had had a constant, not severe pain in the right side during the latter months of gestation. She did not at any time call herself sick, and, indeed, had been well enough to cook a goose for her family dinner on the morning preceding her confinement.

No ergot nor any other oxytotoxic had been administered, and no manual interference could have caused the disaster. The probable cause was a chronic inflammation at or near the placental attachment, which softened the muscular tissue of the uterus, and it then gave way under the strain of a smart expulsive contraction.

It is possible that had the symptom of pain been noticed in time, a few leeches or a blister might have arrested the process and averted the sad catastrophe. But the pain had never been severe, and passed for one of the necessary discomforts attending the puerperal state. To these discomforts, perhaps, we do not always pay the attention they require and deserve.

CASE VI.—*Gun-shot Wound.*—The last case to which I would invite your attention is one of gun-shot wound, and, though occurring at a period when such wounds, of infinite variety were matters of every-day experience, it presents some points which may seem worthy of notice.

October 6th, 1864, a lad of 14 was out on his first shooting excursion, with a razeed rifle, having a wooden rammer, carried, from lack of socket, in the barrel of the gun. He rested the gun against a stone wall while he climbed an apple tree, directly over it, to gather an apple. While in the act, with the apple in his hand, a stone fell upon the lock, discharging the gun, and he received the whole charge in his left arm. He was two miles from home, and walked that distance unaided, *finishing his apple on the way!*

On reaching the house, some two hours after the accident, I found him in bed, complaining of severe pain in the shoulder; not faint, nor with a particularly anxious or distressed expression. A portion of the rammer had evidently entered between the index and middle fingers, shattering the index, and made its exit on the dorsum of the hand, at about the end of the first metacarpal bone. This wound did not amount to much, was simply dressed, and well recovered from, pieces of wood working out at different times from the orifice of exit.

A second wound was found in the middle of the biceps, just half way between the condyles and the acromion, and directly over the brachial artery. The radial pulse was at once sought for, and found perfectly normal. There was no hæmorrhage. The wound was

irregular and jagged, some half an inch in diameter, and was plainly not caused by the ball. A probe passed readily an inch or two straight up, and did not apparently strike any foreign substance. Two or three days after the accident, the lad told me a piece of the rammer stuck out there, after he was hurt, and he pulled it out.

The shoulder was very much swollen, and he had a constant tendency to cough. Spirit lotions were applied to the shoulder, and a full opiate administered, to be repeated till pain and cough were quieted.

Matters went on well enough for six days, the cough continuing troublesome, and being attended by a moderate quantity of mucous sputa, more or less tinged with blood, though not of a decidedly rusty character. The physical signs were, a very coarse crepitant râle and quite limited dulness.

On the evening of the sixth day after the accident, I was summoned in haste, as the wound was bleeding fearfully. I found the hæmorrhage had somewhat subsided before I reached the house, that it was of an arterial character, and had amounted to at least two pints, so that the poor lad was literally weltering in his own blood. Some charpie, well soaked in the perchloride of iron, was securely applied to the wound, and the bleeding ceased, the pulse continuing good, and the patient not being particularly prostrate.

A consultation was at once proposed, and my friends and neighbors, Drs. Partridge, Lincoln and Bryant, the latter at home on furlough from the Army of the Potomac, saw the patient with me that night and the next morning. The various alternatives of amputation and ligation were discussed, and, finally, as the patient was comfortable and safe for the time, expectancy was agreed upon. Very fortunately it was, as the event proved.

Nov. 8th, thirty-three days after the accident, a foreign body, evidently a piece of the rammer, was discovered protruding from the wound, its presence there never having been suspected by myself nor by the other gentlemen who saw the case with me. The severe hæmorrhage had deterred us from any extended manipulation of the arm. The stick gradually protruded more and more, expectancy being still persisted in. In about two weeks more an abscess formed, burst and discharged just below the axilla, on the side of the thorax. The discharge consisted of clear pus at first, then of thin serum, and never with any admixture of blood.

Dec. 15th, ten weeks after the accident, I was again called to the patient in great haste, on account of another bleeding, and found him just gasping from loss of blood, a stream of which was welling up from the side of the stick, and pouring off the foot of the bed on to the floor.

This was at once arrested by the same means as at first, and stimulus having been freely administered, the little fellow rallied well a second time.

It was now plainly enough time to interfere, though the result of the interference might be problematical. Accordingly, on Dec. 26th, eighty-two days after the accident, the patient having well rallied from his last hæmorrhage, with the kind assistance of Surg. McLaren, U. S. Medical Director, the stick was removed. The subclavian was well compressed upon the first rib, the wound was thoroughly cleansed, dressed with charpie and perchloride, and carefully bandaged, the loss of blood being very trifling.

Henceforward the progress of the case was quite satisfactory. The piece of rammer proved to be seven inches in length, and was exposed, before its removal, for just half of its length. It had entered at the middle of the belly of the biceps, and passing upwards and inwards under the head of the humerus, struck the thorax at the inner edge of the axillary space. This explained the cause of the cough and the bloody sputa. Carrying before it a bit of the shirt, it had caused the abscess under the axilla, which did not heal for a long time after the removal of the stick, nor until a piece of cloth worked out of its orifice.

It may seem strange that a foreign body of such size could have remained so long undiscovered in so superficial a position; but the swelling, in the first place, and the extreme pain, contra-indicated any extended manipulation. And, in the next place, the occurrence of the hæmorrhage, uncertain as was its source, rendered the propriety of non-interference the more evident. The patient was accordingly kept absolutely still. The point of most interest in the case seems to me the question from what vessel the blood came. The radial and ulnar arteries could always be felt pulsating feebly, even when the patient was most prostrated. The parts have healed perfectly, with no aneurism nor impeded motion of the joint. The abscess and consequent fistulous opening under the axilla never discharged blood. The hæmorrhage was most frightful, especially the second attack, and would have emptied the body of blood in a very few minutes. The injured vessel seems to me to have been one of two branches of the axillary artery—either the inferior thoracic or the subscapular, and most probably, from the position of the stick and the magnitude of the stream of blood, the latter.

Under the circumstances, I can but regard the perfectly favorable termination of the case as a most unlooked-for event. Much, too, as that most invaluable styptic, the perchloride of iron, accomplished in the arrest of the bleeding, I feel that we are still more indebted to our great surgeon, Nature, whose plan in this case was evidently not to destroy, but to repair.

The fearful nature of the only alternative which offered in case the bleeding could not be arrested at the orifice, after the removal of the stick, viz., the ligation of the subclavian, seemed to justify the prolonged expectancy.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 101.]

THE disease prevailed also elsewhere than in France. It was met with at Gibraltar, under the name of epidemic meningitis, a report of which was drawn up by Dr. Gillkrest, Deputy Inspector-General of Army Hospitals. It prevailed during the first five months of 1844. In a population of 16,000, 450 were attacked, and of these 45 cases were fatal. "The invasion of the disease was in many instances sudden, while in others certain prodromes existed. In some the commencement of the attack was indicated merely by slight disturbance of the cerebral functions, with a little rigidity of the muscles at the back of the neck, and vomiting; these symptoms, perhaps, yielded to treatment in two or three days. In many, however, the headache, particularly frontal or occipital, but sometimes general, was most intense from the commencement of the attack; the head being thrown back, and so retained by the rigidity of the muscles, for perhaps several (in some many) days; extreme anxiety and restlessness for the greater part of the time, frequently with spasms or convulsions, or both; pulse not always disturbed in a degree corresponding with the gravity of the other symptoms; injection of the adnatæ, with high febrile movement, only taking place in a very limited number. Vomiting and costiveness, in the early period of the attack, have been among the most constant symptoms; and it has been observed that after the vomiting had ceased for several days, during which the patients seemed likely to do well, this and the other acute symptoms have recurred, followed by a fatal termination. The absence of thirst throughout was among the most remarkable circumstances accompanying the attack."

Before and during this epidemic, it was noticed that in other disorders there was a tendency to headache, usually of the occiput.*

In Dublin and vicinity, principally if not exclusively in the work-houses and hospitals, a disease called by Dr. Robt. Mayne "cerebro-spinal arachnitis," made its appearance in January, 1846, and continued throughout February, March, April and May, and a few cases were met with in June; also, in March, 1847, Dr. Mayne had two cases under treatment. In this epidemic the spinal arachnoid suffered more severely than the cerebral.†

In 1849, Logrono and Ribafrecha, in Spain, were visited by the epidemic under consideration; the natives called it *clavo* or *sarmiento*.‡

From this date no mention is made in any of the journals to which I had access, of any disease similar to this until 1856, when an epidemic appeared at Niort, in the Hospice des Enfants Trouvés, which

* London Medical Gazette, vol. xxxiv.

† Dublin Quarterly Journal of Medical Science, vol. ii.

‡ London Lancet, Dec. 8, 1849.

in many of its features resembled it, but which was wanting in its fearful mortality.*

A similar disease appeared in Sweden in 1857.†

During the last few years only sporadic cases have been noticed, especially at Paris. A case is recorded in the *Lancette Française*, 1860, which occurred in La Charité; another case, which was observed in 1861, is recorded in the same Journal for 1862; and another case at Hôtel Dieu in 1861, in the same Journal for 1861. In October, 1862, M. Axenfeld exhibited to the Medical Society of the Hospitals, specimens obtained from the examination of a young woman, 26 years of age, who died after four days, with symptoms of meningitis. There was found serum mixed with pus, not only in the cerebral meninges, but throughout the spinal pia mater. He did not think it a case of epidemic cerebro-spinal meningitis, though he understood that similar cases were then frequent, especially among females. It is, indeed, difficult to decide whether these cases were really the disease under consideration or merely cases of simple meningitis.‡

In 1865, an epidemic disease appeared at Dantzic and other cities in Germany, and as there was a great deal said with regard to that and another epidemic in a neighboring empire, known as the Russian fever, and some fears lest it should be communicated by commerce and thus invade England, the Lords of the Privy Council appointed a committee to investigate it. Dr. Sanderson, a member of the Committee, made a report to the Pathological Society of London. He considered it cerebro-spinal meningitis. Herpes labialis was seen; he saw only one case with petechiæ on the skin; hypostatic pneumonia was common; generally, the blood was found uncoagulated after death; in two cases the spleen was excessively hyperæmic and soft, as in typhus, though he considered the two distinct diseases.§

It is not unlikely that some of the epidemics recorded in the previous pages were typhus fever; but the majority, and all those of which it has been possible to obtain accurate accounts, correspond very closely with this disease, not only in the symptoms, but also in the changes discovered after death. Those early epidemics which are recorded as instances of the disease, have been mentioned on the authority of Buserius, Sprengel and others, who have given descriptions agreeing with the appearances found at the present day. Where it has been possible, contemporary authors have been quoted; or, if their accounts have been abridged, care has been taken to give all that is important for forming a correct diagnosis.

Domestic History.—Having reviewed the history of this disease as it has appeared in foreign countries, we now come to the history of its prevalence in this country, which, though extending over a shorter

* *Lancette Française*, 1858.

† Dr. Wistrand on the Epidemic Diseases of Sweden in 1857, *Dublin Quarterly Journal of Medical Science*, vol. xxviii.

‡ *Gazette Hebdomadaire*, 1862.

§ *London Lancet*, May 6, 1865.

period, is even more important, and concerns ourselves at the present day more nearly. Its importance is increased by the fact that in this country, during the present century, the disease has shown itself in its different varieties and with complications more frequently than in foreign countries.

Some have supposed that this disease was seen in this country during the last century, but most of the accounts do not seem to fully sustain such a conclusion. A "malignant pleurisy" was observed on Long Island in 1749, and had some resemblance to the pneumonic form. "The patient was first seized with a shivering or rigor, which is soon succeeded by a pain in his back and head, an early disposition to vomit, with great oppression and anxiety. Soon after the fever is formed, these appearances are followed with an attack of pain in the breast and side, resembling peripneumonic symptoms, attended with a labored and painful respiration, a frequent cough, by which a crude, glazy, frothy spittle, slightly tinged with blood, is discharged; light deliriums through the whole progress of the disease, not constant, but frequently returning; the tongue for the most part parched and dry, but the skin inclined to be moist and sweaty, which, if encouraged, the skin and coats of the eyes become extremely yellow; the blood appears rather dissolved and thin than viscid; the pulse in most cases soft and frequent. This disease ends generally in the death or safety of the patient on the fifth day, sometimes on the third or fourth from the invasion of the distemper. In those that have died it has been observable that, some hours before death, they have recovered their senses and appeared easy, but soon after have unexpectedly and suddenly expired."*

Dr. J. Comstock, in a letter to Com. Perry, which was published in the *Medical Repository*, new series, vol. iii., states that a few cases of a similar disease were seen in Connecticut during 1799, but it did not then become epidemic.

It was not until March, 1806, that the epidemic form was seen; then it first appeared in Medfield, Mass. "Without any apparent predisposition, the patient is suddenly taken with violent pain in the head and stomach, succeeded by cold chills, and followed by nausea and vomiting; matter discharged from the stomach of no unusual or morbid appearance; respiration short and laborious; tongue a little white toward the root, and moist; velocity of the blood increased, with a very sensible diminution of momentum in the radial, while in the carotid arteries it was much augmented; and in a child of 15 months old, a very violent pulsation was discovered at the fontanelle; the eyes have a wild, vacant stare, without much, if any appearance of inflammation; the heat of the skin soon becomes much increased, yet the skin is not remarkably dry; these symptoms are accompanied by a peculiar fearfulness, as if in danger of falling from the bed or the

* Dr. John Bard, in *American Medical and Philosophical Register*, vol. i.

nurse's arms, and continue from six to nine hours, when coma commences, with increasing debility; extremities become cold; livid spots, resembling petechiæ, appear under the skin, on the face, neck and extremities; pulse small, irregular and unequal; spasms occur at intervals, which increase in violence and frequency in proportion as the force of the circulation decreases; at this time the eyes appear glassy, and the size of the pupil varies suddenly, from almost wholly obliterating the iris down to the size of a millet seed, and then again as suddenly dilating. These symptoms seem to mark the second period of the disease, and continue from three to five hours. The third and last stage is distinguished by a total loss of pulsation at the wrists; livid appearances become more general; spasms more violent; coma more profound; death! The patient has, in general, continued in the last stage from six to twelve hours."*

On *post-mortem* examination, there was found serous effusion between the membranes, which adhered to each other and to the brain in several places; congestion and softening of the brain. The stomach was partially softened, and the lungs were darker than usual.

In the fall of the same year it appeared in Mayslick, Ky., and continued to prevail through the winter.

In the spring of 1807, Hartford, Conn., was visited by this disease, and a short time after it appeared in Windsor, and subsequently in other towns in Hartford and Litchfield Counties, and continued to be noticed for three or four years. It was most prevalent during the last of the winter and the spring months.

A very good description of this epidemic, by Dr. Sam'l Woodward, may be found in the *Medical Repository*, 3d hexade, vol: i., or in Dr. North's treatise, with other papers equally interesting. He says:—"This disease appeared in the town of Winchester, in Litchfield County, in April, 1807, when the frost was dissolving and the ground breaking up, and was noticed to make the attack most frequently in rainy weather. Young people, under the age of 20, were most liable to it; and among adults, females more liable than males. No age nor sex, however, were free from the attacks. It assumed, in different subjects, all grades of disease, from a mild fever to a perfect plague. The symptoms were various, according to its inveteracy. It attacks with lassitude, chills, great prostration of strength, eyes red and watery, pupils dilated in some cases, in others small, like dying persons; often delirium, with exquisite pain in the head; great anxiety at stomach, with tossing of the body, nausea, and often a troublesome vomiting; a pain and lameness in some of the limbs often ushered in the disorder; there was a soreness of the flesh, and generally spots on the skin, the size of half a common turkey-shot, were scattered over the body, resembling blood-blisters; likewise efflorescences, of various sizes and shapes, in different parts,

* Drs. Danielson and Mann, communicated to the Massachusetts Medical Society, February, 1809.

which were dark or florid; and a dark or light color of these spots and efflorescences gave a clue to a favorable or unfavorable prognosis. The darker, the more dangerous. In some, after the chills, there was great heat, which was of the thrilling, stinging kind. The pulse, like other symptoms, was various, sometimes considerably full, but generally very weak, quick and irregular. The disease sometimes in this season assumed the inflammatory type, sometimes the synochus, but generally the typhus. The violent symptoms were: great lassitude, with universal pains in the muscles; chills; heats, if any, were of short duration; unusual prostration of strength; delirium, with severe pain in the head; vomiting, with indescribable anxiety at the stomach; eyes red and watery, and rolled up, and head drawn back, with spasm; pulse quick, weak and irregular; petechiæ and vibices all over the body, and a cadaveric countenance and smell. Death often closed the scene in ten or fifteen hours after the first attack; some, however, survived all these symptoms. Those who died generally appeared to sink away under the load of disease, became cold and low, and died comatose, with all the marks of general mortification; others went off suddenly, apparently apoplectic. The body, near the fatal period, and soon after, became as spotted as an adder, and demonstrated a general dissolution of the fluids. When the vital flame began to be rekindled in the system, some grievous external affection most certainly appeared—such as inflammations of the joints, like the acute rheumatism, or an erysipelatous affection of the skin, or racking pains, without any morbid external appearance, convulsions, spasms, &c. These external affections often proved very lingering and tedious. This, however, generally proved a manageable state of the disease."

Dr. Elisha North has given an account in most respects resembling the above; but it will be interesting to notice a few symptoms which he met with, and which are not mentioned by Dr. Woodward. "If I have not deceived myself, almost all had a kind of œdematous feel of the skin, especially about the hands and wrists."

"Upon inquiry, almost all would tell you that they had, in the commencement of the complaint, a slight sore throat, although few would mention it of their own accord. In a few, but very few, however, I have been able to discover aphthæ on the tonsils. In general, they would tell me the soreness was a little lower down in the throat.

"In the bad cases, the most distressing symptoms were, pain of the head and universal distress and agony, which would cause children to draw back their heads, and toss and throw about their limbs."

Petechiæ were by no means constant. He speaks of a "sinking state," but does not describe it further. He seems to refer to the condition mentioned above by Dr. Latham (see page 96), and which was subsequently noticed by Dr. Miner, in 1825. The worst form

this disease ever assumes, particularly in children, is that of coma, or cholera morbus."

During the summer of 1807 and 1808, the disease was seen at Hallowell, Me., by Dr. Page.*

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JUNE 11th.—*Cerebro-spinal Meningitis ; Death ; Autopsy.*—Dr. BLAKE reported the case.

Miss L. R., 26 years old, was admitted to the City Hospital June 2d. For a year has had otorrhœa, with deafness, for which she has been treated by an irregular practitioner, by means of injections, &c., without relief. Five days ago, the present trouble commenced, with headache, confusion of thought, and a feeling of general malaise. Two days after, she was obliged to keep her room, had pain in her back, weakness of knees, and a good deal of febrile action. Was seen by a physician, who, after an examination of her case, thought her symptoms indicated commencing varioloid. During the evening of this day, she first noticed pain and stiffness of the posterior cervical muscles, and shortly afterwards was seized with severe cephalalgia, loss of consciousness to some degree, slight strabismus and opisthotonos, and had remained in that condition up to the time of entrance.

On admission, the opisthotonos was found very well marked—head thrown back, body arched, legs stiff, &c.—almost wholly unconscious ; mouth partially open, and lips covered with little herpetic vesicles ; eyes half closed, with moderately dilated and sensitive pupils ; respiration labored and noisy, 32 ; pulse 120, regular ; tongue dry and brownish ; sordes on teeth. A number of dark, purplish-looking spots, one eighth of an inch in diameter, noticed on chest, neck and arms ; spots not raised, do not disappear on pressure.

Leeches behind ears, ice to head, and bromide of potassium, in large doses, were prescribed. Liquid nourishment by rectum, if unable to swallow. Next day, the opisthotonos had disappeared, but the cervical muscles continued rigid ; she could swallow liquids without much difficulty ; pulse had come down to 90 ; pupils somewhat dilated and sensitive ; still unconscious ; fæces and urine passed involuntarily.

The following day she was in about the same state—respiration and pulse a little quickened ; rigidity of muscles as marked ; no return of consciousness. Next day she died. The following is the report of the *post-mortem* examination, as made by Dr. Swan.

Examination 10 hours after Death.—Head. The large vessels of the pia mater, on the upper surfaces of both hemispheres, particularly about the vertex, were turgid with blood, and the minute vessels lying on the convolutions were unusually distinct. There was a sub-arachnoid de-

* Medical Repository, N. S., vol. iii.

posit of soft, greenish-yellow lymph in many places on the upper surfaces of the hemispheres, at and between their anterior extremities, in the fissures of Silvius, at the optic commissure, on the pons Varolii at the anterior edge of the cerebellum, and on its superior vermiciform process. Lying free upon that portion of the dura mater which covers the upper surface of the right hemisphere, was a continuous, uniform layer of lymph two or three square inches in extent. A less amount, in small, scattered particles, occurred upon corresponding portions of the left side. There was no excess of fluid in the serous cavities of the brain or cord; the brain-substance was firm; the *puncta cruenta* large.

Beginning five inches from the upper extremity of the spinal cord and extending downward about seven inches, was a thick, unbroken deposit of soft, pale, greenish-yellow lymph. It was entirely confined to the anterior aspect. On the posterior surface, the minute vessels seemed slightly injected, but there was no trace of lymph.

In the left pleural cavity, ten ounces of a turbid brownish liquid, sustaining fat globules on its surface. The two principal pulmonary veins of the left lung, and the left primary and two secondary bronchi, were laid bare to the extent of one or two inches, and several venous branchlets were completely isolated for an inch, more or less, by a curious superficial progressive waste of the parenchyma of the lung. This process was most marked on the inner surface of the lower lobe, but it had invaded a portion of the upper lobe nearest its roots and had also extended between the two lobes. It had destroyed at least the pulmonary pleura in its course, the line of demarcation being in general easily made out, but there was also undoubted loss of proper lung tissue towards the centre of the diseased action, although the finger found no deep cavities. The bare parenchyma presented a rather smooth, lobulated surface of a deep brown color. There was little or no odor about the parts. The posterior and upper surface of the lower lobe showed small hæmorrhagic blotches beneath the pleura. Section showed considerable lobular pneumonia. The same disease, to less extent, existed in the right lower lobe. Rest of lungs healthy. Other organs normal.

JUNE 11th.—*Diffused Contusion of Brain*.—Dr. CHEEVER reported the case.

A man, 56 years old, was brought to the City Hospital, having fallen a distance of fifteen feet into the hold of a vessel. The left clavicle was fractured, and two or three ribs just below it. There was a scalp wound on top of head, two inches in length, a contusion behind left ear, and an oozing of blood from this ear. He was sensible, and complained of pain in shoulder on motion.

Some hours after his entrance, he complained much of headache, his pulse was full, and he was somewhat wandering. This pain in the head was a prominent symptom all through his sickness. On the third day he was quite delirious, though never very violently. His pulse was generally in the neighborhood of 100; there was great dyspnœa at times; his face was flushed and he was very restless. He died on the seventh day after the accident, the respiration just previous to death being stertorous.

On the day after his death, an autopsy was made by Dr. C. W. Swan. The wound in the scalp had not united. The clavicle was

found to be fractured transversely near the sternal end; the second, third and fourth ribs were broken at the neck, the rough edges of the second having punctured the pleura.

The lungs were œdematous and congested; the bronchi contained some thick pus.

In the bladder were about a dozen elevated points, of the size and shape of half a small bean, their summits being crowded with a substance resembling ashes, soft, but somewhat rough.

Over a great part of the brain, between the dura mater and the arachnoid, there was an effusion of blood; in the substance, near the centre of the left middle lobe, were three spots of bloody extravasation, the largest being of the size of a pea, and many scattered bloody points, which would not scrape off; there was some softening in the neighborhood of the largest spot. Above and between the lateral ventricles, for the extent of nine and one half inches, existed a very evident congestion, apparently of dilated capillaries; dark lines, the size of a knitting needle, running in every direction, and apparently occupying one half the substance of the brain at this point; there was yellow softening in this region.

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BOSTON: THURSDAY, SEPTEMBER 6, 1866.

SPORADIC CHOLERA.

IN our opinion, the time has come when the question may be very properly asked, whether there is such a disease as sporadic cholera? Whether this name, applied as it is to a set of symptoms differing in no respect from the ordinary symptoms of Asiatic cholera, and generally supposed heretofore to be identical in nature with them, and spontaneously generated, is in reality properly used? Whether in this sense true Asiatic cholera is ever sporadic? We are all familiar with the use of the term; cases are not unfrequently reported at times when there is no apprehension of a general epidemic, and at the present time also we find them in the medical journals. The question of identity is not one of mere names, but a question of importance in its bearing on treatment and prophylaxis. It is one of public interest in the influence which the occurrence of any attack bearing this name must have upon the public mind wherever it occurs. Such a case, in a small community in the country, for instance, is likely to cause widespread apprehension, and produce serious embarrassment to its social interests, if its nature is supposed to be identical with that of the epidemic disease.

It is time then, we think, to lay aside the term by which the disease of which we are speaking has been usually known, and call it by the term which properly belongs to it—cholera morbus. Under this designation the popular mind would rest quite at ease, when the term sporadic cholera would fill it with apprehensions of immediate danger, or dismal forebodings of the approach of genuine Asiatic cholera. Vomit-

ing, purging, even of "rice-water" discharges, cold and damp skin, cramps of the extremities and collapse, do not make a case "sporadic cholera"; they all occur in true cholera morbus, and physicians should make it a matter of conscience to call such attacks by the right name. Especially is this important at the present time, when the whole community is in a state of expectancy, and eager to catch up the first word of rumor of the invasion of the dreaded epidemic.

Still, the term is in very general use. Within a few days we have had a letter from an esteemed friend in the country, reporting a case which he calls one of sporadic cholera, and as it is a fair specimen of these cases we give it as he sends it:—

"We have had one genuine case of sporadic Asiatic cholera in this village, a week ago last Sunday. Patient, 30 to 35; from S. Berwick, Me.; teamster; worked hard in a hot car; got chilled when he came out; ate ravenously of veal, with new potatoes, cucumbers, beans, &c. Saturday, had diarrhœa all night. Sunday, at 9, found him with feet in hot mustard water, Hippocratic aspect, cramps everywhere; had just vomited a bowlful of 'rice-water'; discharged a potful per anum at time of visit. Treatment: bed, sinapisms freely applied, half a grain of calomel, and the tenth of a grain of morphine every second hour; chloric ether and ammonia, half a drachm, with ten drops of laudanum between whites; cold water for drink, *ad libitum*; brandy whenever it could be taken. At 3, P.M., evacuations ceased; reaction commencing; cramps less, but persisting. Injected one fourth of a grain of morphine under the skin, over epigastrium, which put him to sleep. He awoke out of danger."

Not long since we had at the same time in one house, five cases of a similar character, varying in intensity from a few loose discharges, with nausea, to violent and prolonged vomiting, with profuse rice-water evacuations, skin bathed in cold perspiration, violent cramps of the extremities, and pulse very frequent and almost imperceptible. The first case began two hours after a hearty dinner of cold corned beef and cabbage, with free draughts of lemonade. Of these articles all the persons affected partook more or less freely, and all were taken sick within six hours after this unfortunate dinner. The disease in all was checked in from one to eight hours after the commencement of the attack. A similar case we find in the *Medical and Surgical Reporter*, under the heading "Spontaneous Origin of Cholera." It was the case of a child, who had eaten a raw turnip and two very hard apples, and suffered accordingly. She was found by the physician in a state of collapse, which was followed by reaction, terminating on the next day in death from "congestion." It would be easy to multiply such instances.

All such cases, we feel warranted in saying, are cases of pure cholera morbus, and should not be called sporadic cholera, inasmuch as that term implies identity of nature with Asiatic cholera. They are all, so far as our experience goes, the immediate result of indigestion; and, in most cases, are amenable to treatment—the promptest relief, when the stomach has been fully relieved from the offending substance, being obtained, as we have found, from the subcutaneous injection of morphia, in the quantity of one sixth to one quarter of a grain.

The essential difference between these attacks and Asiatic cholera is, that, so far as we have learned, they never give rise to secondary

cases. With Asiatic cholera the case is far different. Few, we think, after the experience of the present epidemic and the carefully prepared judicial report of the Commission at Constantinople, will have the hardihood to deny the communicability of cholera. That Commission, whose authority ought to command the general respect of the medical profession, have given it as their unanimous opinion that it never occurs, out of the valley of the Ganges, except where it has been transported from that region. There can be, then, no such thing as sporadic cholera, in the sense in which the term is generally employed.

CHOLERA BULLETIN.

Cholera in the United States.—For the want of official bulletins, we have no very exact accounts of the progress of the disease in our country. In New York, Philadelphia and Brooklyn, it is almost extinct, the last newspaper report on the 3d inst. being for New York 3 deaths during the day, for Philadelphia 11 new cases and 6 deaths, for Brooklyn 6 new cases and 2 deaths. From Baltimore we hear of no second case since a death occurred two or three weeks since, of a young man who contracted the disease in Cincinnati. In the west and southwest the disease still rages. In St. Louis, during the week ending August 31st, there were about 450 deaths. On the 1st inst., the report is 56 deaths; on the 2d, 48. In New Orleans, 34 cases are reported during the previous forty-eight hours. In Cincinnati, the deaths have reached as high as a daily average of 80. The disease also prevails severely at Chicago. Cases have occurred at St. Paul, Minnesota. We hear from day to day reports from other places at the West, where it would be likely to make its appearance, owing to the free intercommunication by steamboat and railroad. At some places on the Mississippi local quarantines have been established. The whole country seems to be alive to the importance of impeding its progress so far as human means will allow, or of eradicating it by all possible processes of disinfection. No case has occurred in Boston since the case of the soldier who brought the disease from Hart's Island, a month ago.

Cholera in Europe.—We learn from the *Union Médicale* that in Paris, during the week ending August 12th, the number of cases had steadily decreased, so as to amount on that day to only one half the number reported on preceding days. The numbers are not published in the *Union*, as it has been requested not to give the details. At Amiens, on the 9th, there were but 3 deaths; on the 10th and 11th, 2 each. In some of the communes of the department of *Seine-Oise* it prevailed to a moderate extent. Numerous fatal cases have occurred at Beauvais. At Marseilles there were but 4 deaths on the 10th. At Arles the epidemic was severe. It also prevailed with more or less intensity in a great number of communes of the Moselle. All the arrondissements of the department of the North have been more or less invaded by the epidemic; in the town of Lille it was increasing.

In Holland, the cholera was on the decrease. Since the commencement of the epidemic there have been 17,876 cases and 10,912 deaths.

At Liverpool the number of deaths from cholera from July 22d to the 28th was 87, in place of 45 the preceding week. During the same week there were 24 deaths at Southampton, 5 less than during the

preceding week ; 8 at Manchester, 2 at Bristol, 4 at Leeds, 2 at Sheffield, 2 at Newcastle-on-Tyne, 3 at Hull. None have occurred at Birmingham. All these places have more than 100,000 inhabitants.

NAHANT, August 28th, 1866.

Messrs. Editors,—I stated in my article, reported in your last week's issue, that a horse was not susceptible to the poison of hydrocyanic acid *by the mouth*. This is not the case, as will be seen from the two experiments herewith reported.

A fortnight ago, Dr. Stickney kindly sent to my stable a horse laboring under a severe attack of tetanus, resulting probably from an injury to his foot.

In his presence, I injected, subcutaneously, half a drachm of concentrated hydrocyanic acid (containing nearly five per cent. of the anhydrous acid). In a minute and a quarter afterwards the horse breathed with some difficulty, and more frequently. This lasted but a short time, as did also acceleration of the heart's action.

No more poisonous symptoms showing themselves for fifteen minutes, and the horse apparently recovering from the poisonous effects, I injected a drachm into the tongue. In a minute afterwards poisonous effects began to be noticed—respiration more difficult, circulation increased in frequency, but less strong, dilatation of pupils—all happening in four minutes after injection. In eight minutes, sweating of head and neck, afterwards profuse all over body ; also trembling of limbs, restlessness, and an anxious, neighing sound.

But this dose was not large enough, for in twenty minutes the horse was recovering. I then gave two and a half drachms by the same method. The same symptoms as before noticed, sweating occurring at the end of five minutes only, and a discharge of urine, which I had not time to collect for examination. The horse apparently recovering from this dose, I gave, in twenty minutes after, five and a half drachms in the same way, and in ten minutes after the animal was dead, an attempt at convulsions occurring at about four minutes after injection. He died apparently as all the animals did, from paralysis of the functions of the lungs first and the heart last. At no period of these experiments were the tetanic spasms appreciably relaxed.

On Friday of last week, I poured into the throat of a horse of sound body but unsound feet, and over twenty years old, five ounces of the concentrated hydrocyanic acid. About two fifths, at least, of the drug was not swallowed. Nevertheless, in a minute and a half afterwards, the poisonous symptoms began to show themselves—acceleration of pulse, difficulty of breathing, profuse sweating, dilatation of pupils, stiffening of muscles, and next a glazed, staring expression of the eyes, rolling up of the *membrana nictitans*, and then a falling forwards in convulsions, ending in some inclination to opisthotonos. In eight or nine minutes afterwards the horse rolled over on to his belly, gathered up his forelegs under him, presently got up, and staggered from weakness, his bones rattling from his excessive trembling, and he neighing piteously. As soon as I felt pretty certain that he was recovering, I injected down his throat from a syringe as much of four ounces as I could make him swallow—about three, I should judge. In a minute afterwards his respiration became more labored, and the preceding symptoms returned with more violence. In twelve minutes his violent convulsions gradually ceased, and his thorax moved less

and more slowly. He slowly expired, in twenty-three minutes after swallowing the second dose, his heart having ceased to beat.

ROBERT AMORY, M.D.

Fourteenth Annual Meeting of the American Pharmaceutical Association. THIRD DAY—MORNING SESSION.—The convention was called to order at 9 o'clock.

A resolution was adopted that all members who have lost their membership in consequence of the war, either Southern members or those from the North who have been in the army, may on application to the Secretary be relieved from past dues, and may renew their membership by beginning with the dues of this year.

A resolution was adopted that a list of all the societies and associations to whom copies of the proceedings of the Association are to be furnished, be published at the end of the proceedings.

A committee of three, with the President as chairman, was appointed to further consider the subject of the internal revenue law and its bearings upon pharmacy.

It was voted that the next meeting of the Association be held in New York city on the second Tuesday of September, 1867, at 3, P.M. Mr. P. W. Bedford, of New York, was elected Local Secretary.

On motion of Prof. Parrish, of Philadelphia, the President and Secretary were instructed to accredit delegates to the International Scientific Convention at Paris in 1857.

Dr. Jenkins, of Louisville, offered some verbal suggestions on the subject of sulphate of quinine. Prof. Graham, of Philadelphia, offered a volunteer essay on the subject of opium. James I. King, of Middletown, N. Y., presented a volunteer paper on metallic lead in flour. Papers were presented by F. H. Markoe, of Boston, upon liquid bismuth, and one upon iodide of ammonium; by S. G. Cariques, of East Saginaw, upon bromine in salt brine; by Chas. A. Heintish, of Lancaster, upon saffron. The papers were referred to the Executive Committee for publication.

Adjourned to 7 o'clock.

This afternoon, on invitation of the druggists of the city, the Association went on an excursion in the steamer "Morning Star," going down Detroit river to Lake Erie, and returning north to some distance above the city. The weather was fine, and the excursion was highly enjoyed by all who participated in it. An elegant collation was served on board the boat.

EVENING SESSION.—The convention was called to order at 7 o'clock.

Prof. Parrish, of Philadelphia, read a paper on the subject of "Titles," setting forth the necessity of adopting terms by which to designate those practising the profession of pharmacy and their places of business, to take the place of the varied and cumbersome terms now employed.

Prof. Maisch, of Philadelphia, presented a series of analyses of Sherry wines, brandies and whiskeys; also certain statistics of the drugs used in the United States Medical Laboratory at Philadelphia, of which institution Professor Maisch was Superintendent from March, 1863, to January, 1866.

T. C. Lewis Deihl, jr., of Louisville, Ky., offered a paper on the best methods of forming certain chemical compounds.

Mr. A. B. Spencer, of Rochester, New York, exhibited a machine for distilling in a vacuum and filtering under pressure.

On motion of Dr. Squibb, the thanks of the Association were returned to the Judges of the Supreme Court of Michigan for the use of the room in which the meetings have been held, to the drug trade of Detroit for their hospitality, and to the press for faithful reports of the proceedings.

After the transaction of some unimportant business, the Association adjourned to the second Tuesday of September, 1867.—*Boston Daily Advertiser*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 1st, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	55	60	115
Ave. mortality of corresponding weeks for ten years, 1855-1865	53.6	52.3	105.9
Average corrected to increased population	00	00	116.30
Death of persons above 90	0	1	1

JOURNALS RECEIVED.—Medical Record, Nos. 12 and 13.—Medical and Surgical Reporter, Nos. 4-9.—Medical News and Library for August.—Buffalo Medical and Surgical Journal for August.—St. Louis Medical and Surgical Journal for July and August.—Medical Reporter, Nos. 11 and 12.—Nashville Journal of Medicine and Surgery, New Series, No. 1, for July.—Memphis Medical and Surgical Monthly, Nos. 1-5.—Atlanta Medical Journal, New Series, No. 6, for August.—Savannah Journal of Medicine for June.—Pacific Medical and Surgical Journal for June.—Canada Medical Journal for June.—Gazette Médicale of Montreal for July.—L'Union Médicale, Nos. 87-100.—Journal de Médecine de Bordeaux for July and August.—New England Medical Gazette, No. 8.—United States Medical and Surgical Journal, No. 4.—Philadelphia University Journal of Medicine and Surgery, Vol. ix., No. 3.—Journal of Materia Medica for September.—Detroit Review of Medicine and Pharmacy for July.—Chemist and Druggist, Vol. vii., No. 84.—London Lancet (American reprint) for August.—Hall's Journal of Health for September.—The Herald of Health and Journal of Physical Culture for September.—Phrenological Journal for August.

BOOKS AND PAMPHLETS RECEIVED.—Spermatorrhœa; its Causes, Symptomatology, Pathology, Prognosis, Diagnosis and Treatment. By R. Bartholow, A.M., M.D., Prof. of Physics and Medical Chemistry in the Medical College of Ohio, &c.—A Guide to the Practical Study of the Diseases of the Eye. By James Dixon, F.R.C.S., &c.—Epidemic Cholera; its Pathology and Treatment. By A. B. Palmer, M.D., Professor of Pathology, &c., in the University of Michigan.—Cuvierian Classification of Animated Nature. An Address before the Central Massachusetts Dental Association. By J. H. McQuillen, M.D., D.D.S.—Reports of the Soldiers' Memorial Society, presented at the Second Annual Meeting, June 5, 1866, Boston.—Report on Dental Hygiene. By Henry S. Chase, M.D., D.D.S.—Annual Report of the City Registrar of the Births, Marriages and Deaths in the City of Boston for the year 1865.—Transactions of the Vermont Medical Society for the year 1865.—Prof. David S. Conant, M.D.: Memorial Address to the Graduating Class of the Medical Department of the University of Vermont. By Prof. A. B. Crosby, A.M., M.D.—Transactions of the Indiana State Medical Society, at its Sixteenth Annual Session, held at Indianapolis, May 15th, 16th and 17th, 1866.—Roll of Students of Harvard University who served in the Army or Navy of the United States during the War of the Rebellion. Prepared by order of the Corporation, by Francis H. Brown, M.D.—Valedictory Address to the Graduating Class of the New Orleans School of Medicine, Session 1865-66. By J. L. Crawcour, M.D., Professor of Medical Chemistry and Legal Medicine.

DEATHS IN BOSTON for the week ending Saturday noon, Sept. 1st, 115. Males, 55—Females, 60. Accident, 4—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 3—cancer, 3—cholera infantum, 18—cholera morbus, 5—chorea, 1—consumption, 16—convulsions, 2—croup, 2—debility, 2—diphtheria, 1—dropsy of the brain, 3—drowned, 2—dysentery, 9—scarlet fever, 1—typhoid fever, 3—disease of the heart, 4—hernia, 1—infantile disease, 6—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 5—marasmus, 3—old age, 2—paralysis, 2—pleurisy, 1—premature birth, 1—disease of the spine, 1—ulceration of the stomach, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 58—between 5 and 20 years, 7—between 20 and 40 years, 17—between 40 and 60 years, 16—above 60 years, 17. Born in the United States, 78—Ireland, 22—other places, 15.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 7.

REMARKS ON UTERINE HÆMORRHAGE.

By G. J. TOWNSEND, M.D., of South Natick.

To the Editors of the Boston Medical and Surgical Journal.

I PROPOSE to offer a few remarks upon two forms of uterine hæmorrhage, to which we are especially obnoxious in our vicinity. The first form of which I would speak occurs in the unimpregnated uterus, and with nearly equal frequency in the single and the married. It is considered a hæmorrhage, and not excessive menstruation, from the facts that the catamenial periods are more or less regular as to time, often remarkably so; that the menstrual flow begins moderately and normally, the patient, except in extreme cases, being able to keep about the house; that this continues, gradually diminishing, after the second or third day, until the fifth day, and that then, with remarkable regularity in many cases, the true bleeding commences. From that day, for a longer or shorter period, the sufferer is confined to the bed, and the loss of blood is often very great.

The source of this bleeding is ulceration in some form or other, or exuberant fungoid granulations, like those so common on the surface of the body in the second stage of carbuncle.

In those cases where the ulcer is on the external surface of the os and cervix, the diagnosis is easy; but in those other cases, where it is entirely within the cavity of the cervix, it is not always easy to recognize it. And ulceration in this latter situation has given rise to the most frightful hæmorrhages I have met with in the unimpregnated organ. More than once, a grave suspicion of the existence of an intra-uterine polypus has been aroused, only to be dispelled by the most positive assurance of the normal size of the uterus, the unaltered condition of the uterine cavity, and by the successful result of local treatment.

The prognosis in this form of uterine hæmorrhage should, in extreme cases, always be guarded. For though it seems a simple matter enough to promote the healing of an ulcer in these regions, the constitution of the patient is often too seriously impaired before our attention is called to the disease. The usual unfavorable termination,

in the cases which have come under my observation, has not been that which occurs in chlorosis and in anæmia. The great scourge of our climate—phthisis—has closed the scene in all my unfavorable cases, and the arrest of the hæmorrhage has been followed by the final cessation of all catamenial flows and by the rapid development of tubercle. Therefore, when a patient shows an habitually rapid pulse, a tendency to dyspnoea, however slight, a cough, and any physical signs of tubercle, the chances of recovery are fearfully against her. If, in addition, she is not tolerant of tonics, especially iron, her case is the more desperate.

The indications for treatment are simple enough, viz.: to control the hæmorrhage during its occurrence, to promote the healing of the ulceration, and to build up the general health of the patient.

The ulceration can be made to heal readily enough by the energetic or thorough application of nitrate of silver, and by the employment of sedative, alterative, and astringent applications by means of medicated pessaries and injections. When it is confined to the cavity of the cervix, the pencil of caustic requires to be introduced as far as possible, and should be sharpened by means of a wet sponge, that it may reach every part of the disease; otherwise a portion may be hidden between the rugæ of the mucous membrane, and, escaping the touch of the pencil, may render the case unnecessarily protracted and tedious. To be effectual, too, the application should be painful, the lining membrane being much more sensitive than the covering membrane of the os. It is unnecessary to enlarge upon the means of promoting the cure, as they are treated fully enough by all authorities upon the disease.

The means of arresting the hæmorrhage at the period of its occurrence have not been treated of so fully, and it may not come amiss to notice a few of them.

During the first four or five days, the menstruation being usually natural, or but little in excess of nature, nothing is to be done, save to restrict the patient to a very moderate quantity of exercise. But when, upon the morning of the fourth or fifth day, the true bleeding commences, it is of vital importance to the safety of the patient to check it as soon as possible. To this end cold-water injections by the rectum are of great use in two ways—by cooling down directly and constricting the uterine engorgement, and by freeing the bowel from all accumulations, which of themselves greatly aggravate the trouble.

Cold applications to the bowels and perfect rest in the recumbent posture should also by no means be neglected. But the remedy upon which I am accustomed to place my chiefest reliance is the tampon of solid alum. This should be applied well up to the os, as soon as the true hæmorrhage comes on; this can easily be done by the patient herself, and it should be allowed to remain from two to six hours, according to the severity of the symptoms. It always arrests the

flow for the time, and usually for the whole present catamenial period, though if one application be not enough, there is no danger, nor usually inconvenience, in renewing it at intervals of twenty-four hours two or three times.

As to remedies by the mouth, they do not amount to much; though I have sometimes derived decided advantage from the use of alum in powder, in five-grain doses, combined with some aromatic, and repeated at short intervals, say every two hours. The stomach usually tolerates it very well.

Lead I never use, and the vegetable astringents have not much power, or else disturb the stomach, with the exception of matico, which is often a valuable tonic where the stomach bears nothing else. Iron, in the early stages of the trouble, almost invariably makes matters worse, no matter under what form it is given. Later in the case, it is often invaluable.

There is one simple remedy, which we are in the habit of considering nearly inert, from which I think I have had quite positive results, and that is the *spiritus lavandulæ compositus*, given in small doses—fifteen drops every three hours. It is not only an acceptable stomachic and restorative, but has a decided astringent influence—in mild cases diminishing the sanguineous discharge to a marked degree. In full doses it rarely fails to disagree, causing nausea and præcordial distress.

Stimulants, spiced wines, brandy, and the like, so often resorted to for relief from the faintness which loss of blood causes, only aggravate the disease while temporarily relieving the symptom, and are in all cases, with very rare exceptions, positively injurious and contra-indicated.

The second, and much the most immediately formidable form of uterine hæmorrhage to which I would allude, is that which occurs as a consequence of delivery.

The usual story in these cases is, that the mother was overworked to the last moment, and labor begins with the whole muscular system more or less exhausted. The number of children the patient has borne has much influence in producing the trouble, the uterus wearing out, as it were, under the very frequent calls upon its energies. But some very serious cases of *post-partum* flowing have occurred, under my care, in primipare.

A fortnight's wash, or a week's baking for a large family are amongst the most common preliminaries of such cases. But this, again, is not an invariable rule, for one of the most insidious and dangerous cases I have ever had was that of a wealthy patient, who enjoyed an average of very good health, and who lived in every way most rationally. The constitution of the blood had probably much to do with the trouble in this case, the patient being naturally of a lax fibre, though bearing muscular exercise well enough, and accustomed to take a good deal of it.

The warning symptoms of hæmorrhage are well enough known. The restless, impatient toss of the head first, the hasty ejaculation, the hæmorrhagic pulse, never less than 80, often much above 100, the absence of all uterine tumor after the expulsion of the placenta, are all warnings readily recognized and sufficiently appreciated by each of us. There is, however, one symptom which has been an almost invariable attendant of my severe cases, and which I have never seen alluded to; and that is, a peculiar, indescribable odor of the placenta, membranes and lochia, very penetrating, very different from their natural odor, and that is bad enough, and like nothing else that I know of.

That this has some connection with the flowing, I am led to believe from the fact that before I recognized the frequency of the coincidence, the presence of the taint always caused a feeling of uneasiness and apprehension, too often confirmed by the subsequent course of events.

As to the means of arresting the bleeding, it is unnecessary to speak of those that are well known. Ergot, galvanism, stimulus, cold pressure on the abdomen, causing the uterus to expel its contents and to follow up its contractions afterwards, we all have used. But there are a certain proportion of desperate cases in which all these means fail us, and where it becomes a serious question what to do next. Writers tell us that the act of vomiting conduces to the safety of the patient, producing, or being followed by contraction of the uterus. Emetics have been suggested as a means of producing contraction. It has not been so in my experience, and I have grown to regard vomiting as the most formidable symptom possible. Ergot, brandy, wine, ether, hot drinks and cold, ice even, will sometimes come up as fast as we turn them down. Each act of vomiting has been followed by a relaxation of the uterus the more obstinate, by a collapse the more alarming, the uterus pouring out blood, like water from a well-saturated sponge. I would here say that I always regard it of the utmost importance that the uterus should, by contractions, expel the placenta in all cases, except where there is adhesion or hour-glass contraction. With these exceptions, it is rare that we need fail in causing it to do so, and usually a few minutes' compression will cause the contraction to be permanent.

The means, then, that have never failed me in the most severe hæmorrhages are, in the first place, the local application of ice. The safety of applying ice to the os uteri, in cases of non-contraction, has often been discussed. It seems to me the only element of danger in this treatment is, that it is not carried far enough. Ice, to be effectual, should be carried through the os up to the very fundus, and should be kept there; the hand and arm acting as a tampon and preventing the escape of blood from the sinuses until the uterus contracts. A cold left hand upon the abdomen materially assists in producing the contraction, and when it occurs, and not until then, be

the time longer or shorter, should the uterus be allowed slowly to expel the hand and arm. Once contracted in this manner, it has never relaxed again in any of my cases.

In the second place, to allay the vomiting, to quiet the terrible restlessness, to avert the collapse, when all other means have failed, I have depended upon opium, given in small doses at very frequent intervals. Ten drops of the acetated tincture of opium, or fifteen of laudanum, with an equal quantity of the aromatic spirits of ammonia, in a very little cold water, not more than a drachm, given every fifteen minutes, constitute my usual prescription. This is very rarely rejected, and should be persevered with if it is. Two hours is the longest time I have stood over a patient waiting for the desired result—the first fifteen minutes of quiet sleep, which puts her life out of immediate danger. We can all testify as to what a load of anxiety this brief interval of repose removes from the attending physician, and the great relief it brings us.

As to the *modus operandi* of opium, I can say nothing, except perhaps in the words of Dr. Meigs, that it acts “as the great restorer of the vital forces.” I certainly can add the small weight of my testimony to his when he says, alluding to these cases, “Gentlemen, be not afraid of opium.”

I offer these remarks, gentlemen, not as anything new or original, but simply as the record of my own experience upon given points, and as just so far valuable and no farther.

CASE OF LUMBAR ABSCESS.

[Communicated for the Boston Medical and Surgical Journal.]

EARLY in the autumn of 1863, the Rev. Wm. P—— was taken with acute pain in the hip and thigh of the left side. His symptoms in a day or two led to an examination of the spinal region, over the central lumbar vertebræ. It was evident that there was deep-seated inflammation at this point. The ordinary remedies were used. Very rapidly the constitutional symptoms of purulent collection presented themselves, but it was several weeks before the enlargement was very marked upon the surface. It then filled out over the transverse processes of the lumbar vertebræ. I now used a small-sized trocar with canula, and drew away a large quantity of pus. Every few days I drew off this collection, twice taking away as much as twenty ounces. But now the abscess opened into the bowel, giving a large discharge of pus from the rectum. I at once made a free incision into the abscess, having to cut deeply through nearly the whole mass of lumbar muscles. The patient appeared to be rapidly sinking. This was effectual in stopping the discharge from the rectum, the flow of pus coming now through the free opening. For many weeks it was just a balance between the *supply* and the *drain*, but at last

it was decided in favor of supply, and the patient began to rally. A seton was now passed through the abscess, and worn the following winter, spring and summer. At the time of introducing the seton, the transverse process of one of the lumbar vertebrae (the second, I believe) was found diseased. When the seton was removed, Mr. P. was only troubled with want of power in the knee and leg of the affected side.

Owing to the mind and body being overtasked, the same symptoms presented themselves in the autumn of 1865. But now they were promptly met by a free incision and evacuation of the pus, and the same general treatment as before. A seton has been worn steadily until removed the first day of August, 1866. He did not run quite so low with this attack, and has rallied more satisfactorily than before. With each attack the suffering was extreme, and would have been constant without the use of anodynes. Fortunately, morphine acted *only* favorably with him, neither deranging the stomach, interfering with his appetite, nor clouding his brain; so that I was able to keep the pain under control most of the time for several months, and then very rapidly stopped the use of the drug. Nourishment of the strongest kinds he was able to take throughout his sickness. Alcoholic stimulants, being disagreeable, were not used. When he was very low, ammonia was used. Iron in different forms, quinine, and iodide of lime, were used as required. Very little else in the shape of medicine was given. Rest from *all* that taxes his nervous system is required. He did not take it before, hence the relapse. He won't take it at home, therefore he has been advised to go elsewhere for it. Good air, good diet, moderate exercise, and no smoking, is his prescription for daily use, to be followed for months.

St. Stephen, N. B., Aug. 25, 1866.

WM. H. TODD, M.D.

RATIONAL MEDICINE AT LA CHARITE—TREATMENT OF PNEUMONIA.

To the Editors of the Boston Medical and Surgical Journal.

A SHORT time ago you published some extracts from the *Lancet* indicating the progress of Rational Medicine at Guy's; will you now have the goodness to re-print a few paragraphs from an article in the last number of Championnière's Journal (Eng. Ed.), showing the state of things in this respect at *La Charité*. Your readers will not fail to see in them a strong resemblance to the doctrines advocated hereabouts for some time past. One can almost imagine that M. Jaccoud had just risen from reading one of our late annual discourses, so similar are the sentiments of the two, and even the language.

"Whoever has attentively studied the works of the masters who have enriched science by their writings, and has personally observed

the symptoms and progress of pneumonia with a discriminating judgment, will avoid the error of asserting that this disease is amenable to a treatment invariably the same, or to any specific medication. In order to form a correct estimate of the numerous methods advocated by authors for the cure of pneumonia, it is absolutely necessary to take into account the influence of the age, constitution, precedents and idiosyncrasy of the patients, and the modifications which localities and the prevalent type of disease impart to that affection. The practitioner must, above all, recollect that the remedial measures at our disposal do not, like bullets, go straight to the heart of the enemy. Like variola, pneumonia runs its course with regularity, or meets with obstacles of various nature which may cause a fatal termination. It is against these obstacles that our remedies are directed, and their removal should be the object of our efforts, in order to restore the complaint to its physiological conditions. Now, the debility of the system is one of the most formidable of the obstacles, which the prevalent theories of inflammation have too often caused us to lose sight of."

"The above remarks indicate the general spirit of the lectures delivered at La Charité by M. Jaccoud, who temporarily supplies the place of Prof. N. Guillot, on the subject of pneumonia, and which were suggested by a case in which the exhibition of alcohol was deemed necessary. We shall advert in the present article merely to the question of treatment, and to the comparative estimate instituted by the Professor of the various methods resorted to in genuine pneumonia in the adult."

"*Absence of Treatment.*—From a document published in 1849, by Dielt, we learn that in 189 cases of pneumonia, merely dietetic measures were prescribed, and that the average of deaths was 7·4 per cent. only; whereas in 85 cases treated by venesection, and 106 by tartar emetic, the mortality was 20 per cent. in the former, and 20·7 in the latter."

"*Depletion.*—Statistics drawn up at Edinburgh show a mortality of 27·06 per cent. in 783 cases of pneumonia treated by bleeding."

"*Tartar Emetic.*—We have stated that Dielt records a mortality of 20·7 per cent. in 106 cases exclusively treated by tartarized antimony. Rasori finds a corresponding average of 22·06 in 640 cases."

"*Bleeding and Tartar Emetic.*—The average mortality in the cases recorded by Laennec, Grisolle and Skoda, was from 12·5 to 16 per cent."

"*Restorative Treatment.*—Of 129 cases of acute pneumonia in which tonics and food were allowed, at the Edinburgh Infirmary, Mr. J. H. Bennett lost but 4, a proportion of 1 in 31·25." * * * *

"In the case selected by M. Jaccoud to illustrate his remarks, although the oppression was considerable, the Professor did not resort to bleeding. * * * *

"On the first day he merely watched the symptoms, and abstained from interposition. On the morrow, hepatization was completely effected, and occupied the middle and inferior lobes of the lungs. The weakness and dyspnoea had increased, the voice was more broken, and the pulse more feeble—in short, constitutional aggravation had occurred; but far from regretting that he had not previously resorted to bleeding or other debilitating measures, M. Jaccoud congratulated himself on not having contributed his share to the aggravation of the case; and determined on exhibiting active stimulants, in the shape of an ounce and a half of brandy, to be taken in the course of four and twenty hours."

"Abuse is, however, to be avoided, and alcohol should not be prescribed in too large quantities nor for too long a period. * * * The stimulant prescribed in moderation will, on the contrary, yield most satisfactory results. Such was the case in M. Jaccoud's patient, in whom an amendment was promptly noticeable. Two ounces of brandy were prescribed on the second day, and this dose was persevered in for six days. Mere diet-drinks and tisanes were ordered on the seventh and eighth days." * * *

"In conclusion, M. Jaccoud opines that pneumonia has a tendency to spontaneous resolution, and that no remedies should be resorted to but such as are calculated to overcome any obstacles that may arise to the naturally favorable termination of the disease. In its uncomplicated condition, pneumonia runs its course in spite of all the efforts of art. Under these circumstances, medical interference should be confined to a removal of the complications, and this important fact should always be borne in mind, that resolution cannot take place unless the system is endowed with a certain amount of power."

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 125.]

At Minisinek, Orange Co., N. Y., in 1808-9, it was seen and described by Dr. Arnell. He speaks of an "indescribable distress about the præcordia," and says sight was at times temporarily lost.*

In 1810, this disease was seen in York County, Maine, and was observed until 1812; it was again seen in the autumn of 1814 and spring of 1815. It is said to have "differed from all other diseases, and yet it assumed in different subjects the livery of all."†

It was in 1810 that a committee was appointed by the Massachusetts Medical Society to receive communications and report on this then new disease. The committee consisted of Drs. Thomas Welsh, James Jackson and John C. Warren, and on the 21st of June they

* American Medical and Philosophical Register, vol. i.

† New England Medical Journal, vol. iv.

made their report, which was afterwards published. It appeared in Dana at the beginning of that year, and more cases after the middle of January. Also, it appeared at Petersham in the latter part of February; at Barre, Oakham, Rutland, Paxton, Hardwick, New Braintree, Brookfield, Spencer, Sturbridge, Winchendon, Athol, Gerry, Leicester and Worcester, during March; Cambridgeport on the 24th of March, and at Lancaster in April; in April and May at Boston, and also in many towns in Worcester and Middlesex Counties; during May in Springfield. The headache is noticed as a universal symptom and as one of the first, or the very first occurring. Delirium seems to have attracted more attention than in previous years; it was generally mild, though at times furious. The account of the symptoms does not differ materially from that already given. Among the varieties of the disease, the following is given as a description of some cases which occurred, especially among females. "Universal, deadly coldness; skin white as polished marble, and smooth; countenance perfectly placid, not one distorted muscle; pulse at the wrist imperceptible; motion of the heart scarcely to be felt; respiration visible only by gasping, and that not frequent; and, as it were, only a step between this imperfect state of life and death." Even from this state of deadly stillness patients were restored to life and health.

A good description of the usual eruption is given, together with some anomalous appearances of the skin. "The spots on the skin are of various descriptions. They occur in all stages of the disease; less frequently, however, on the first than on the subsequent days. Frequently a rash or miliary eruption only appears, or a few blotches on the inside of the elbow and other similar parts; and it has been suggested that these may be produced by the mode of treatment usually adopted. The blotches are florid, or red and fiery. An appearance like measles has also been noticed, and likewise vesicles and pustules, which have been compared to the vaccine and variolous eruptions. In some cases these spots and eruptions have appeared at succeeding periods, two or three times in the course of the disease. The vesicles and pustules are very frequently torn by scratching; after which, or without being torn, they are commonly followed by scabs of a brown color, but occasionally they are followed by ulcerations, which do not heal until after recovery. These affections of the skin are often attended with itching; and independent of them itching very frequently occurs, especially on the third day, when the symptoms become more favorable at that time. This itching is sometimes extremely violent, so that the patient will almost tear up his skin in endeavoring to alleviate it. All these affections are frequently noticed at the time when the more important symptoms abate or subside. In a few cases, vesicles containing a bloody fluid occurred in the county of Worcester. These vesicles were compared to blood-blisters, and were about the size of a large pea; they appeared on vari-

ons parts of the body and limbs; in a few days they broke, discharged a bloody fluid and scabbed over. In one case, in which the attack was very violent, blisters resembling those produced by cantharides appeared on the second or third day on the breast and on one foot. They were about five inches in length and nearly one in breadth. On the fourth day from the attack, some of those on the breast and that on the foot became black and dry, and the skin was sphacelated. The eschars, with due treatment, left clean ulcers, which healed without scars."

The petechiæ and vibices "occur in comparatively few cases of the disease. They are of worse portent in proportion as they are more dark colored." They were not always found in fatal cases nor confined to such.

In the appearances upon examination after death, there was a close resemblance to the disease as seen at the present day. When the cranium was separated from the dura mater blood was discharged; serum was found beneath that membrane, being sometimes of a red color. The sinuses, especially the longitudinal, were filled with blood; there was also congestion of the surface of the brain. Between the arachnoid and pia mater there was found an opaque substance—coagulated lymph—which followed the course of the vessels. The hemispheres were sometimes adherent to the dura mater and to each other. There was serum in the lateral ventricles; and the choroid plexus was thicker and harder than usual.

The blood was unusually dark in the heart.

"In one case the cavity of the thorax was the seat of very considerable disease. The heart was inflamed, and exhibited a large, thick flake of yellow lymph on its anterior face. The pleura of the right side, both of the ribs and lungs, was covered with the same substance, and the cavity of the pleura contained a very large quantity of half-formed pus. The color of the lungs externally was an ill-looking purple, and the pleura over them seemed to be shrivelled, and adhered to the diaphragm. Their consistence was uniformly firm in this case.

In 1811 Dr. Elisha North published his treatise on "Spotted Fever," extracts from which have already been given. In speaking of the diagnosis, he says:—"It is obvious, however, from the great variety of symptoms which this disease exhibits, that there will be great liability to mistake it for several other diseases, particularly cynanche maligna, scarlatina, common typhus, rheumatism, hydrocephalus internus, cholera morbus, hysteria, mania, phrenitis, apoplexy, nettle-rash, colic, &c."

Until this time the epidemics had borne a very strong resemblance to what we have seen in our own day, the nervous centres being especially affected; but during the next three or four years the pneumonic form was in many places prevalent, sometimes to the exclusion of all others.

During this time the disease was seen, in the spring of 1812, in

various towns of Vermont and Maine, and in Salisbury and other towns of New Hampshire; in the State of New York, especially in the vicinity of Albany among the soldiers, in the pneumonic variety, and at Blackrock, near Buffalo, in the autumn of the same year; at Burlington, Vt., Granville, N. Y., and at Niagara in the winter of 1812-13. It appeared in Maine, at Lyme and Waterford, Conn., in Western New York, Philadelphia, and Winchester, Va., during the winter and spring of 1813; in Southern Virginia, at Chowan River, N. C., Natchez and in Eastern Mississippi in the autumn of 1813; at Bardstown, Ky., and in Talbot and Queen Ann's Counties, Maryland, during the winter of 1813-14; at Hallowell, Gardiner and Kennebeck, Me., Malone, N. Y., Natchez and in Eastern Mississippi during the winter and spring of 1814; at Berwick, Me., York County, Me., Edenton, N. C., and in Southern Virginia during the summer and winter of 1814; at East Greenwich, R. I., at what was called Northern Neck, Va., at Falmouth, Richmond and Middlebury, Va., in Southern Virginia, at Salisbury, N. C., Columbia, S. C., and Milledgeville, Ga., during the year 1815.

During this period the type of the disease was rather more sthenic in its action than that previously observed. This change in the grade of the fever was coincident with a change in the part affected. The lungs received the weight of the disease, and pneumonia was very generally observed: so general was this, and so free were the patients from all affection of the head, that the disease was considered by many as differing materially from the so-called spotted fever of former years.

Dr. James Mann, in his "Medical Sketches of the Campaigns of 1812, '13 and '14," has left us valuable information with regard to this epidemic as it appeared among the soldiers in Greenbush and other places. He says:—"It has been already observed, the sudden change of weather in October (1812) introduced additional forms of disease among the men. We have to notice one of more formidable and more questionable symptoms—pneumonia, or inflammation within the breast. This disease was, in some instances, accompanied with diarrhœa, or supervened where diarrhœa previously existed, which last disease had not entirely disappeared. The following are the most prominent symptoms:—pain in the chest; in some cases one side, in others both were affected; short and difficult respiration; dry cough; the pulse of those whose condition was most alarming was small and hard; the heat of the body and extremities not above the standard of health, sometimes below.

"This disease, when it first appeared at Greenbush, was not considered as being connected with an epidemic state of the atmosphere.

"In proportion to increase of cold, this disease became more frequent and severe.

"It may be necessary to observe, the winter epidemic of 1812-13

was a form of disease distinct from that which, in the northern districts of the Eastern States, the preceding winters, had been known by the name of *spotted fever*, although the exciting causes may have been similar. In the *spotted fever*, mental derangement was an almost general concomitant of the disease. In many instances, this affection of the brain was the first symptom of morbid action. Whereas, *pneumonia*, especially among the troops, was never accompanied with mental derangement, at its first attack, and but seldom in its more advanced stages; nor until the laborious respiration, which was a most prominent symptom at its first attack, had somewhat subsided, or the patient was at the point of death.

"This epidemic appeared under the forms of both sthenic and asthenic diathesis; although under the last it was often, if not always deceptive. In many of the first cases at Burlington, the disease proved fatal in two, three and four days, by the violence of the first attack; in some instances, in less than twenty-four hours after the first symptoms of indisposition supervened.

"The following were the most conspicuous features of the disease under its most deadly form. At the first attack the heat of the body and extremities was below the standard of health; the pulse contracted and hard, sometimes scarcely perceptible; respiration extremely laborious—not apparently so much from sharp pains through the sides and breast, as from a sense of suffocation. The patients say, upon inquiry, that they do not suffer from extreme pain, but a weight upon the chest—an oppression from inability to inhale the air.

"This epidemic was wide spread in its influence, prevailing from Lake Erie down to Lake Champlain; over Vermont, the northern counties of Connecticut, Massachusetts and New Hampshire."

"In the second stage of the disease and where there was a weak, soft pulse, bleeding was injurious; yet the antiphlogistic regimen was necessary. Here the respiration was difficult, but not suffocated, accompanied with pain in the side, and expectoration of bloody mucus; the bronchiæ were so crowded as to be incapacitated to free themselves from the load with which they were oppressed; the heat of the body was never much above the common standard of health. This form of the disease was frequently accompanied with diarrhœa.

"The third form of this disease showed itself with less questionable symptoms. At the first onset of the disease, there were strong rigors, with acute pain through the chest. The rigors were soon followed by much heat, strong pulse, cough, and no expectoration. The efforts of coughing always increased the pain in the breast."

Dr. Silas Fuller, stationed on the Niagara frontier, observed the same disease, which was not so much confined to the army, but spread more among the citizens. He says:—"The disease appears evidently to depend on some peculiar state of atmosphere as a remote cause; and an exposure to wet, cold and fatigue as an excit-

ing cause. In proportion as these causes have operated, a more or less violent form of the disease is produced. The most common form under which it has presented itself is that of sthenic pneumonia; the most fatal and unmanageable of the pneumonia *notha* of the old books. Under this last form it has seldom appeared.

"The asthenic form most commonly commenced with cold shivering. After some time there is a sense of heat. In some instances, the common symptoms of *pyrexia* are noticed. The pulse, however, for the most part is small, and the heat not higher in degree than natural. During the course of the disease respiration is extremely laborious, with slight erratic pains through the chest.

"A sense of weight and fulness is felt through the whole extent of the thorax, which are increased to an insupportable degree, while the patient is in a horizontal position. There is a peculiar paleness and wildness not easily described.

"This epidemic, in its sthenic form, is not always a pneumonia. The fever has sometimes appeared without any local affection, under the type of *synocha*. In a few instances, the inflammation has attacked the brain and its meninges, producing *phrenitis*. Inflammation, with suppuration in the throat and frontal sinuses, are varieties of the disease.

"The sinking stage of the disease is known by the smallness of the pulse, coldness of the extremities, dark or shining appearance of the tongue, extreme debility, with some degree of delirium, and *subtulus tendinum*."

Jaundice during convalescence, discolored fæces, and hæmorrhages from the intestines also occurred.

During the campaign of 1814, Dr. Mann met with the same disease at the Malone Hospital:—it "was accompanied with all the same symptoms under which it appeared the preceding winter, but its attacks were less frequent. There were a few cases of disease which assumed the form of spotted fever—in which the brain seemed to be the seat of the disease; a mental derangement having been the first alarming symptom, without any pneumonic affection. All of these died within the first twenty-four hours; two of the number within six hours."

In an account of the epidemic of 1815–16 at Sharon, Mass., and vicinity, he says:—"In four or five instances this epidemic made its assault upon the head." Afterwards pneumonia supervened. Three cases out of seventy had symptoms of *erysipelas*.

"At Rochester, County of Plymouth, there were cases where the disease was not confined to the lungs; but the inflammation appeared under the form of *cynanche trachealis*, *pharyngea* and *parotidea*, as the trachea, tonsils and parotid glands were successively or simultaneously affected."

"It should be understood that, notwithstanding all the above con-

ditions, the most prominent symptoms of typhous fever do not exist in this complaint—as debility and low delirium. In a very few instances, delirium has accompanied the other symptoms of the disease, but it is always phrenitic.”

I have given such copious extracts from this work by Dr. Mann, because by his position in the army he had great advantages for the study of the disease as it appeared among the soldiers, and more clearly than any one else has given the symptoms and the objections against considering it spotted fever. It must be acknowledged that its action was much more sthenic; but the head symptoms were not absent; they did not appear at Greenbush, but were seen at Niagara, and again in another year at Malone, and afterwards at Sharon. Other symptoms, too, were present which are often found to accompany spotted fever, as sore throat, and even debility was noticed in some cases. We shall see, by other accounts, that elsewhere the disease yet more closely resembled that which we are considering; and even in the vicinity of Albany the pneumonic form was not invariably met with. The following *post mortem*, which was performed at that city in the last part of March, 1812, presented no morbid appearances in the lungs. The young man was attacked March 28th, and died in thirty-two hours. “The claret color on the surface appeared to have been produced by a slight effusion of blood into the cellular substance; the omentum was of a pink color; the bloodvessels of the mesentery and the vena portarum were distended with blood; the spleen was about four times its usual size, but of a healthy color and consistence. On cutting into it, a great quantity of grumous blood of a very fetid smell oozed out of it; the stomach was empty; the gall-bladder full of yellow bile. Nothing further was discovered in the abdomen differing from a healthy state. The lungs were of a healthy appearance; the heart and large vessels connected with it, particularly the aorta, were distended with blood; the coronary vessels were as minutely injected as I have ever seen them in the best preparations. On removing the skull-cap, the dura mater and brain were distended with blood; on making incision into any part of the brain, the cut surface was instantly covered with the blood which oozed from its vessels; the right lateral ventricle contained about a tablespoonful of serum.”*

Dr. Southwick, of Albany, has given an account of the symptoms as he found them in his practice. His first case occurred in October, 1812, a young man who had been living at Greenbush; his second case was seen in November. Afterwards the disease became more common, and he treated many who were thus attacked. In his account he says:—“The patients now complained of pain in different parts of the body—the heels, ankles, knees, hips, small of the back, shoulders, breasts, sides and head—a heavy, painful sensation in the eyeballs;

* Medical Repository, 3d Hexade, vol. iii.

they suffered under these pains at different times, and often at the same time.

"The most distressing chills ushered in the disease. My patients told me the chills were different from anything they ever felt before; they were peculiarly agonizing in some, and in the language of two, 'they were like throwing cold water on their hearts.' The tongue at first always pale, and its secretions inactive. This paleness of the tongue continues in the worst stages; pulse in almost all these cases little different in frequency from natural, but the sensation given to the finger by the artery *peculiar* and *new* to me; it appeared that during the intermission of each pulsation the vessel had completely emptied itself. The pulsations, though they appeared to distend the artery to its usual capacity, were weak and languid. In short, it exhibited every mark that would deter a prudent physician from bleeding.

"In the majority of cases they complained of pain in the right side and across the breast; with the last symptom a slight but frequent cough was frequently attendant."

"In the second stage the pulse became quick, feeble, and often hardly perceptible. This generally took place on the third day.

"If no favorable crisis had taken place at this time, the pain in the head or side would return sometimes with a burning sensation at the stomach attended with more or less nausea; now the breast suffered the most distressing sensations from an incapacity to fill the lungs by inspiration."*

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 13, 1866.

THE METRIC SYSTEM.

WITH all the perfection which modern science has attained in measuring the infinite distances of space beyond our planetary system, and in ascertaining the density and size of remote celestial bodies, as well as in the determination of the minutest markings of nature's handiwork, and of the least appreciable differences in the weight of particles, we still retain for the expression and registration of these wondrous results the uncertain standards and terms of barbarous times. That nothing could be more unsatisfactory for the purposes of science and commerce than the systems of weights and measures now employed in nearly all the civilized states of Europe and in this country is universally admitted, and an equal unanimity of opinion exists as to the advantages of the French decimal or metric system, in which weight and capacity bear a definite relation to measure, and all three are ex-

* Medical Repository, N. S., vol. i.

pressed in terms which convey their own meaning, and in which there is nothing arbitrary or vague. Thus we have first as the natural standard of measure the *metre*, or the ten millionth part of a line drawn from the pole to the equator, and all multiples and subdivisions of this and the other units employed are decimals and expressed, the former by Greek, the latter by Latin prefixes, as *Deca-*, *Hecto-*, *Kilo-* and *Myria-* for 10, 100, 1000 and 10,000, and *Deci-*, *Centi-* and *Milli-* for tenth, hundredth and thousandth. Liquid measure is expressed by the term *Litre*, which is a cubic decimetre: weight by *Gramme*, a cubic centimetre of distilled water at the freezing point: and solidity by *Stere*, a cubic metre. In these few lines we have the whole system in its simplicity of language and completeness of detail. Would it were as easy of adoption as of comprehension.

As our readers know, an effort was made at the last session of Congress to procure the substitution of this for our National system of weights and measures, and it is to be hoped that this may be accomplished before long, at least so far as its adoption by Government as the official standard. In this way the people would gradually become familiar with the terms, and its introduction would be as certain and universal as our decimal system of currency. Much might be effected in hastening this desirable end if scientific men would employ it exclusively in their language and works, for the study of natural science is so popular with the American people that the terms employed by authors and lecturers are rapidly adopted into common language.

In no branch of industry, trade or profession, however, is there so great confusion in this particular or so much need of the adoption of the metric system as in our own art. Not only are there the two distinct systems of Avoirdupois and Troy weights with the same terms, by one of which medicines are bought while they are dispensed by the other, but the terms for liquid measure, both Wine and Imperial, are likewise identical with those of the former, so that all four are frequently confounded and differently interpreted by physician and apothecary, and not infrequently, we apprehend, does the former write his recipe with the vaguest notions of the absolute quantities he is prescribing, and trusting that the druggist will understand it all if he does not. The substitution of the *gramme* and *litre* in pharmacy for this unfortunate medley would at once remove this embarrassment. In the preparation of the last Pharmacopœia the words *grains* and *troy ounces* are alone used to express weight, while the old wine measure is retained. We trust that long before the time for the fifth decennial revision of that work the profession will have adopted by general consent the simple metric system of France, for it is only by such steps on the part of learned bodies, for whom such changes are not impracticable, that its universal adoption will be accomplished.

Cholera in Boston.—At the meeting of the Board of Aldermen on Monday, Dr. Read, City Physician, reported the death of a man on Bremen Street, East Boston, of Asiatic cholera, and expressed the opinion that he contracted the disease at Philadelphia. Precautions were taken to prevent the spread of the disease. Several cases of sickness have recently occurred near Northampton Street in Roxbury and Boston, some of which have terminated fatally, which have also

been called cholera. We trust that the City Physician will enforce the same rigid precautions in this locality which have been thus far so effective in preventing the spread of the pestilence in this city.

American Medical Association.—The Committee of Publication have issued the following circular:—"The Committee of Publication are obliged to appeal to the members of the American Medical Association for contributions of money to defray the expenses of printing and illustrating the transactions of the last meeting. The amount of assessments at the meeting in Baltimore falls short of that required by more than one thousand dollars, and unless this deficiency is supplied the volume cannot be published. Many members have expressed their willingness to contribute, and one has agreed to give a hundred dollars if there is any prospect of aid from others. You are earnestly requested to contribute, and to forward whatever amount you may be disposed to give to Dr. C. Wister, 1303 Arch Street, Philadelphia, Pa."

The Prize Essay Committee of the American Medical Association request that all communications to be submitted to them be sent to the Chairman before the 15th day of March next, accompanied by a sealed envelope containing the name and address of the authors. The Association offers two prizes of one hundred dollars each for the best two essays on any subject connected with the medical sciences.

F. DONALDSON, *Chairman*.

W. CHEW VAN BIBBER,	EDWARD WARREN,
JOSIAH SIMPSON,	G. C. COX.

A Suggestion.—It is not a little remarkable that an age which has invented steam-travelling and the despatch of messages by electricity should still content itself with a method of handwriting which is laborious and occupies a very unnecessary length of time. We travel six times as fast as our forefathers; we telegraph with the speed of lightning; but our ordinary written language is just as long and tedious as ever it was in days gone by. For the purposes of social intercourse this is not a matter of much moment, nor is it likely that any great change would find favor with the world at large. But to men engaged in scientific occupations who have to write much, and whose time is very limited, there can be little doubt that a common system of abbreviation would prove a great boon. There are numbers of medical practitioners, for instance, who would find it of immense advantage to keep notes of their patient's cases, and are only prevented from doing so by the expenditure of time and labor which, under existing circumstances, would be thereby entailed. If the adoption of a system of shorthand could be generally agreed upon by scientific men, an amount of convenience would be experienced the importance of which it is difficult to over-estimate. We are convinced that sooner or later a scheme of this kind *must* be adopted. There is no reason why our profession should not assume the initiative in its introduction.

The great difficulty to be overcome in the institution of such a method arises from the existence of a wide-spread misapprehension. At least ninety-nine persons out of a hundred are under the impression that years of application are required for learning shorthand. And

doubtless, in order to acquire such dexterity in the art as enables a reporter to follow a rapid speaker, months, perhaps years of practice are necessary. But the art itself can be learned in a week. A very few weeks' practice will then enable the learner to jot down with singular ease, and in a concise form, notes which would entail much space and labor if the ordinary handwriting were employed.

The clearest and most simple method is probably Mason's. This was introduced a hundred and fifty years ago; and although since that time nearly two hundred other systems have appeared, it still holds its ground, and is now adopted by nearly all professional reporters.*

The time must come when printers will learn to compose in the ordinary type from MSS. written in shorthand. The relief which this will give authors can only be estimated by those who will take the pains to compare the simple marks used in shorthand with the lengthy and laborious process of ordinary writing. But until there is a demand for this kind of work, it is not likely that printers will take the trouble to acquire the art. It is quite worth the while of members of our profession to look into this, and for that reason we have thought that a brief reference to it was not out of place in our columns.—*London Lancet.*

Chloride of Sodium in the Treatment of Wounds.—This is one of the most important discoveries of the present day for inducing the speedy cicatrization of wounds and for obviating the dangers that sometimes result. A great many agents have been employed for this purpose, as coal-tar, phenic acid, camphorated alcohol, chlorate of potassa, and other compounds of chlorine, and latterly the sulphites. Amongst these different agents, none are more useful as disinfectants than the compounds of chlorine; but strange to say, the chloride of sodium, which is the most common, and is always at hand, is rarely used by the profession. It is not, however, that experience has failed to testify to its worth; for many very able and interesting articles have been written on its use in the treatment of wounds, and submitted to the profession. Latterly, Dr. V. Dervandre has published an article on the value of the chloride of sodium in the treatment of wounds, the more valuable, adds this author, because it can be always procured. The first effect of the chloride of sodium on a wound which is fetid, is to induce the immediate disappearance of the bad odor. Another immediate phenomenon observed is the pinkish hue which it gives the decomposed sanguineous blackish liquid which covers the wound. At the same time, there is experienced a sensation of cold and of pricking in the wound, which may even become slightly painful. The suppuration diminishes rapidly in quantity, and, if sanious, it becomes healthy in a few days. The wound granulates and cicatrizes rapidly. The change evidenced in wounds by the chloride of sodium has a happy effect on the system. The appetite improves, and the patients acquire strength. In support of the value of a solution of this salt, Dr. Dervandre reports 400 cases of wounds thus treated. In one case only was there pyæmia. There was neither erysipelas, nor tetanus,

* The process is clearly explained in a small work, "Parliamentary Shorthand, by Thompson Cooper," published by Bell and Daldy, Fleet Street.

nor hospital gangrene present in any of his cases, though the hygienic condition of the hospital under his care was bad. The solutions used by Dr. Dervandre are not of the same strength. At first he uses a solution of about two drachms to two pints of water. In a few days afterwards he resorts to concentrated solution. These solutions are injected in fistulous tracts or on the surface, according to the nature of the wounds.—*Union Médicale—Richmond Medical Journal.*

Relief for Spasmodic Asthma.—Dr. J. S. Monell, in a communication to the *Medical Record* on this subject, writes as follows:—

“Having been a sufferer from frequent, severe and protracted attacks of spasmodic asthma for a period of fifteen years, and having by accident hit upon a means for speedy relief, I am induced to present the same to the profession, in the hope that by its adoption it may prove as beneficial to such as are subject to attacks of this distressing affection as it has been to myself and to some of my patients.

“In December, 1865, I was having a severe attack of asthma one evening about nine o’clock. I placed myself standing at the foot of my bed, with my arms folded upon the foot-board for a pillow, the forehead resting upon the folded arms, and the feet placed a sufficient distance to make a partial semicircle of the body. While laboring severely for air, the thought occurred to me to cease breathing for a few seconds. I did so, and after several trials I felt some relief. I then expired all the air that it was possible to, after which I determined not to inspire again until I found it absolutely necessary. I succeeded in waiting several seconds, then inspiration was carried to its fullest capacity, and retained with great effort for many seconds. This act of forced expiration, waiting, thorough inspiration, and again waiting, was continued for some fifteen minutes, and to my delight the spasm was perfectly relieved. I have since relieved several similar attacks by the same method in less than two minutes.

“I have advised this course for many others, and their testimony has been uniformly satisfactory, except in one instance, that of an aged lady with heart disease. It requires a great effort on the part of the patient to perform the act. It is well for the medical adviser to perform it personally in presence of the patient, and then desire him to perform it once or twice under his supervision. The first attempt of retaining the inspired air during the asthmatic attack will cause the patient to think he cannot continue it, but perseverance will soon delight him with relief from the spasm.”

Ivory.—The number of elephants that must be destroyed annually to meet the demand for ivory is absolutely enormous. It is stated on good authority that the cutlery establishments of Sheffield alone consume annually the ivory which is supplied by slaying more than 20,000 elephants; and every country must have its supply. The other sources from which ivory is obtained, the walrus, the narwal, &c., afford but an insignificant item in the supply, and as no other substance has been discovered or invented which can take its place, and as the demand is constantly on the increase from year to year, it would seem that the race of elephants may before long become ex-

tinct. The best ivory known is that which comes from Africa, for though it is not so white as that furnished by the Asiatic elephants, it preserves its color best, is most transparent, freest from cracks, and receives the highest polish. This is owing to the fact that the African ivory contains about equal parts of animal and earthy matter, while in the Asiatic the proportion of earthy matter is greater. One great source of the supply of ivory in Russia and the northern countries of Europe is the tusks of extinct species of elephants and mammoths, which are found in the banks of the rivers of Northern Siberia in a remarkable state of preservation. In very cold countries ivory of fossil elephants is preserved for ages. In our own country the fossil remains occasionally dug up are dry and brittle; but boiling in a solution of gelatine will supply the want of the original albuminous matter. So, on the other hand, by dissolving a portion of the earthy matter, which is one of the principal ingredients, ivory retains its tenacity, but becomes exceedingly flexible. It is thus prepared for making surgical instruments. What will supply the place of ivory when the race of elephants is destroyed we cannot tell, but ingenuity is already at work to furnish a substitute, and is stimulated by the offer of large rewards. A short time since a reward of 5,000 dollars was offered in this country by parties interested in the manufacture of billiard balls, for a substance possessing the same qualities in about the same proportions. Ivory has the elasticity which adapts it to this purpose, but as it is affected by dampness and expands unequally, according to the grain, it is found that the balls do not retain their perfect sphericity in all states of the atmosphere. For this reason, and on account of its increasing scarcity, some other substance is in demand. Vegetable ivory, so called, is used in making many articles, but is of comparatively little value. There seems to be more hope that the requisite material will be obtained from some compound of India-rubber or gutta-percha than from any other source.—*New York Journal of Commerce.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 8th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	50	45	95
Ave. mortality of corresponding weeks for ten years, 1855-1865	51.9	52.4	104.3
Average corrected to increased population	00	00	114.55
Death of persons above 90	0	0	0

DIED,—In Bingham, Me., on the 16th of November, 1865, Zachariah Spaulding, M.D., aged 66 years.

DEATHS IN BOSTON for the week ending Saturday noon, Sept. 8th, 95. Males, 50—Females, 45. Accident, 5—aneurism, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 2—cholera infantum, 13—cholera morbus, 9—consumption, 15—croup, 4—cystitis, 1—diarrhœa, 2—diphtheria, 2—dropsy, 2—dropsy of the brain, 1—drowned, 2—dysentery, 4—scarlet fever, 1—typhoid fever, 2—disease of the heart, 3—infantile disease, 6—congestion of the lungs, 1—inflammation of the lungs, 2—measles, 1—old age, 1—premature birth, 3—spina bifida, 1—syphilis, 1—ulcers, 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 44—between 5 and 20 years, 6—between 20 and 40 years, 22—between 40 and 60 years, 16—above 60 years, 7. Born in the United States, 63—Ireland, 23—other places, 9.

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ON THE NATURE AND TREATMENT OF ECZEMA.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

BY JAMES C. WHITE, M.D.

SINCE the days of Willan eczema has been considered a vesicular disease; that is, one which is characterized by the formation of vesicles, just as we find scales to be the constant and most prominent appearance in psoriasis. This definition is far too narrow, however, to comprehend all the morbid conditions of the skin which are universally called by this name, or those which, if not commonly so considered, a proper regard for the teachings of pathology will oblige us to include under the same title. It is wonderful to trace the influence which this author has exerted upon nearly all of those who have written upon this class of diseases; for so great was the step which he took in his time in individualizing symptoms and appearances and in clearing away the rubbish which centuries had heaped upon the study of cutaneous affections, and so easy to follow was the method he introduced of classifying disease according to its external and momentary aspects alone, that his views until recently have been almost universally accepted; as if so great a progressionist in his day could not possibly have founded a false system. There have been other methods of study advised, but those which the English have adopted, and those consequently which we have hitherto generally followed, have been more or less influenced by his doctrines.

Let us briefly examine some of those forms which are generally recognized as eczema, as they present themselves to the physician for advice. A gentleman asks you to look at an eruption upon his ankles, which, he says, has troubled him for several years. You find a portion of the skin of the lower third of the leg uniformly reddened, slightly elevated and covered with thin, irregularly-shaped, minute scales, or with fissures here and there, and nail marks. You take up a fold of it between the thumb and finger, and find that the skin is much thickened by infiltration, and is slightly warmer than other parts of the body. He says it itches excessively, and the excoria-

tions prove the truth of his statement. He says, too, that it has remained in precisely that condition for months, and that he never saw it in any other. If you watch it without treatment, you may convince yourself of the correctness of the first of these observations, even after months have passed.

Again, you are consulted by parents about a boy just growing into young manhood who has a most obstinate eruption on the forehead. On examination, well-formed papules are seen clustered or scattered over the affected portion of skin, which is somewhat redder than natural, glazed, and thickened, though not so much so as in the case just mentioned. It is situated generally just over the protuberance of the os frontis, where the hat presses the skin. Successive crops of papules appear, and the integument becomes redder and thicker at intervals, exhibiting at times slight fissures, or, in the abatement of the attack, harsh and minute scales, but the papules never change their form. Let the disease extend to the eyebrows, however, or, as in some instances, spread to the cheeks, and quite different appearances are presented. Occupying the place of the former, we see thick, yellow crusts, and the skin contiguous very much infiltrated, while on the brow the disease retains its original form, and the itching is intense throughout.

Again, upon the lower leg we are shown a chronic ulcer, small and indolent, and all around it, including a large portion of the limb below the knee, the skin is firm, thickened, glazed, with superficial fissures, or covered with glistening and large white scales of dried epidermal cells, which fall off in thin flakes, and exhibit the skin in the above described condition. The itching is here, too, excessive, and this state of things may continue indefinitely.

You are called to see a young child whose whole scalp is hid by a thick yellow crust, upon the surface of which only the ends of the hairs are visible. If you remove a portion of this and examine the skin beneath, it will be found to be vividly red, moist, and, if you attempt to raise a fold between the thumb and finger, infiltrated to a high degree. The itching is incessant. The ears, too, are distorted, and there drips from them continually a clear fluid, which stiffens like starch upon whatever it falls. Upon other portions of the body we find groups of vesicles which break and give rise to crusts upon drying, or which are converted into suppurating surfaces, while beneath both the skin will be found in the same state of infiltration and redness, or isolated papules, vesicles and pustules may appear.

These are examples of a series of morbid phenomena, briefly described, which are constantly met with in practice. Certain and very essential points are common to them all, viz.: thickening of the skin in consequence of infiltration, an efflorescence of some form upon the surface, and more or less itching. They are all well-known and admitted forms of eczema, and yet in neither of the first four forms are any vesicles to be discovered. There are several other

quite as distinctly marked types in which this is equally true. In the last case vesicles are present with other appearances. But the Willanist will say, it is only in the beginning that we are to look for vesicles; they form the initiative or elementary lesion of the affection. It signifies nothing that a disease exhibits itself in the form of papules, of excoriations, of fissures, of pustules or of scales for months or years, it must have arisen in vesicles which may have lasted a few days only, and these, it is said, form its essential and typical element. If not, the conclusion is inevitable that these phenomena, undistinguishable in other respects from those in which vesicles were an accidental appearance, cannot be considered eczema. The truth is, however, that in the forms first alluded to vesicles are seldom, if ever, formed at any stage, and that in spite of this they are simply eczema, and moreover that not only may this disease exhibit in its course one or all of the various appearances we have described, but that its earliest manifestation may be the formation of an erythema, a scale, papule, vesicle, excoriation, fissure or pustule, and that the same efflorescence may exhibit in the course of its development nearly all the phases above mentioned. The particular form of eruption or combination of forms in any special case at any moment will be determined by the stage in which it may happen to be, the portion of the body on which it shows itself, and the idiosyncrasy of the patient it affects; for, as we have seen in the cases cited, not only are quite different appearances presented under different circumstances, but in the same person and at the same time a variety of efflorescences are observable. Fortunately for our more explicit understanding of this Protean disease there are among the many ætiological conditions of its production substances which often give rise to forms which we are called upon to treat, and in order to study and illustrate its development at will, Prof. Hebra has adopted the plan of applying to the healthy skins of a number of persons some one of those irritating substances which is capable of producing an artificial eczema. There can be no sound objection to this method of study, for we find that the eczema which results from external irritation differs in no way from the so-called idiopathic acute variety, and may terminate in any of the chronic forms of which we have spoken. The irritant he selects is croton oil, which produces on some persons a redness, on some well-formed vesicles, on some prominences or papules, and on others red points. Both the papules and vesicles are formed about the hair follicles, and are the result of their hyperæmic and infiltrated condition. If we continue the application, we shall find vesicles forming by degrees in every case. In those individuals who exhibited at first the papules only, the epidermal covering of the eruption becomes gradually thinner, and the exudation collected beneath shines through; or, in other words, the papules have become vesicles. If we push the use of our irritant still farther at this stage, the vesicles become more numerous, larger,

run together, discharge their contents by bursting or scratching, and excoriated patches are formed, which are vivid, red and moist. In fact, we have immediately under our eye the rete mucosum, which allows the free discharge of the fluid blastema, now that the upper layers of the epidermis are removed. If we leave the process now to itself, this fluid will gradually stiffen by exposure to the air, and form a crust over the affected spots, beneath which the epidermal cells are again developed, and the skin, after remaining red for a while, is restored to its former condition. In cases where the papules and vesicles have not undergone this last stage of development, they disappear by the reabsorption of their contents, and the effete epidermis is thrown off in the form of scales. If, however, instead of leaving nature to set up her reparative process at this stage, we continue the application of the irritating substance, we see instead of the limpid and watery fluid, which was discharged from the excoriated surface, pus cells to form in the blastema, and soon we have before us a suppurating patch, which likewise dries up, and forms thick crusts or scabs. Here, then, we have arrived at the end of the process. We have seen artificially produced five different forms of eczema, viz.: squamosum, papulosum, vesiculare, rubrum, and impetiginosum, or, as writers describe them, Pityriasis rubra, Lichen, Eczema, and Impetigo.

Now precisely the same process is passed through in cases, of eczema occurring without external irritation. We do not mean to say that all these phases are exhibited in every case, but it often goes through the first forms before attaining the latter, and we may have opportunity to observe them all upon different parts of the same individual.

We see, therefore, that this affection might quite as appropriately have been placed in several of the other groups of Willan or Wilson as among the vesiculæ, and it is only because a too narrow definition has been adopted that they have been obliged to call the same individual pathological process on one day strophulus, on another pityriasis, on another lichen, on another eczema, on another psoriasis, and on another impetigo. This, in fact, the latter is obliged to admit, for we find him first stating that the papules of lichen "are large and soft on the face, and also large and soft in infants, in whom they are called strophulus"; then that "the difference between eczema and lichen is not one of cause, but of manifestation—the difference of manifestation being chiefly due to difference of temperament and sex. Eczema is more common in females than in males, in the sanguine and lymphatic than in the choleric and nervous temperaments. Eczema, moreover, is never present without lichen, and only becomes eczema when the vesicles are in excess over the papules. Eczema may also have a mingling of the pustules of impetigo, or the ichorous contents of its vesicles may become purulent; in either case, it ceases to be simple eczema, and is then eczema impetigino-

des." Still farther on he adds, "Impetigo is, in fact, a pustular eczema, just as eczema is an ichorous lichen, and the latter a papulous erythema."

With regard to the affection called impetigo, we are satisfied that, if it has any real existence, it is of very rare occurrence. We have seen that we may produce a pustular affection at will; and in the great majority of cases the term impetigo is improperly applied to an advanced stage of eczema, and this may almost always be stated with regard to impetigo capitis, the crusts of which, stained yellow by the abnormal sebaceous secretion, are often considered to be wholly composed of purulent matter. In certain conditions of the economy, moreover, an exudative efflorescence runs through the various phases of its existence with great rapidity, and hence the eruption is said to be pustular from the first. We do not mean to deny the existence of an idiopathic pustular eruption, but maintain that it is rare, and that impetigo and ecthyma are names applied to appearances which are often the result or sequelæ of merely mechanical irritation of the skin, and are produced by, and consequently are a part of, other diseases.

Hebra is not the only writer, however, who has allowed wholesale scepticism in relation to old established theories to lead him to fresh investigations as to the nature of cutaneous diseases. Hardy, by far the most reliable French authority of the present day, has adopted similar broad views with regard to the forms hitherto classified as distinct diseases. Impetigo he treats of under eczema, and says "La plupart des auteurs ont décrit l'impétigo comme une maladie à part, et même, en raison de l'existence de l'élément pustuleux, quelques-uns l'ont rangée dans une autre classe que l'eczéma, parmi les maladies pustuleuses. Nous croyons cette distinction tout à fait contraire à une bonne philosophie, et pour nous, l'eczéma et l'impétigo ne sont que deux formes différentes de la même maladie. * * * * Ainsi vous le voyez l'eczéma et l'impétigo présentent le même début, les mêmes symptômes, la même marche et le même mode de terminaison. Ajoutez qu'ils se développent, sous l'influence des mêmes causes, et qu'ils réclament le même traitement, et vous pourrez logiquement conclure que ces deux affections sont identiques; il n'y a là qu'une différence d'intensité dans le degré de l'inflammation, qui est plus grande dans l'impétigo que dans l'eczéma ordinaire, et cette inflammation plus intense fait développer des pustules au lieu de vésicules." Pityriasis, too, he regards as "one and the same affection as eczema in a different period of evolution," and lichen, he says, is so intimately connected with the latter that it is very difficult, if not impossible, to distinguish them.

But it is not only the degree of inflammation or the organization of the individual, to which eczema owes the multiplicity of its phases. Each particular portion of the body when affected, and there is none which is exempt, offers some peculiarities, which render an especial

account of its appearance according to its seat essential to a complete description of this disease; a consideration of which, however, would be foreign to the purpose of the present communication.

The great majority of the cases we are called upon to treat are those which have already existed for some time, and which, with an occasional exacerbation, remain in about the same state for months, unless interfered with by our treatment. With old people especially, eczema is often so persistent that a temporary cure or alleviation merely is all that may be hoped for. There is a mistaken idea prevalent in the profession that the form so often met with upon the head and face of infants, and known as *crusta lactea*, should not be interfered with, but should be allowed to run its course until the child has outgrown it. It is true that it is often difficult and sometimes a long process to effect a cure in such cases, but we have never yet seen any unfavorable result follow successful treatment, and we believe that such fears are entirely without foundation. In this connection, we would allude to the equally groundless, popular belief in the evil results which may follow the disappearance of any chronic eruption under treatment. For although it is true that a connection appears at times to exist between a cutaneous affection and some chronic disorder, such as a catarrh, or leucorrhœa or diarrhœa, so that the internal and external manifestations alternate, all writers who have had the largest experience in these diseases deny the possibility of any serious consequence resulting from the treatment of eczema, and in confirmation of this opinion we are pleased to add that of the venerable Dr. James Jackson, who informed us recently that in his long experience he had never known any serious effect upon the health to have been produced by the cure of a cutaneous eruption.

Ætiology.—What are the causes of eczema? How shall we explain a condition of the skin, which is of so very frequent occurrence, which affects all ages from early infancy to extreme old age, which manifests itself chiefly in persons in the fullest health, and over which climate and season, sex and condition are apparently without influence? Shall we be satisfied with the meaningless and undemonstrable theory of a humor or dyscrasy? Does that explain any more intelligibly the phenomena of exudation, the formation of the various superficial appearances and the itching, which make up the history and definition of the disease? We think not. With many of the numerous external circumstances which may call it into existence we are acquainted, but of the nature of the internal or constitutional changes or states which may dispose to it, we know in fact almost nothing. Of the former a long list might be enumerated, capable of creating the disease *de novo*. Extreme degrees of heat or cold are frequent causes, whether natural or artificial. Of the former the lichen tropicum of writers and the *eczema solare* on the one hand, and the chillblains on the other, are good examples, as well as the affection known as “baker’s itch,” a

form of eczema upon the hands of persons employed about fires. Water itself, if used often beyond certain degrees of heat and cold, will produce it by maceration of the epidermis, as after baths and cold water packings. So too salt, iodine and sulphur baths. Various mineral and medical substances have the same power when brought into contact with the skin, among the most powerful of which are the alkalies. Shaving is apt to induce it, the fault chiefly of the soap used, which has a similar effect upon the hands, as those of washwomen bear witness, although Willan gave this disease the name of psoriasis. The too free external use of sulphur, chiefly owing to its impurities, and mercurial preparations, produce similar effects. In the vegetable world we can enumerate still more, among which are the ethereal oils, turpentine, croton oil, mustard, &c. Among these there are two plants, indigenous to North America, of which the slightest touch or even the effluvium are sufficient to produce the most exaggerated forms of eczema. They are *Rhus venenata*, a shrub (poison sumach, or as it is improperly called, poison dogwood), and *Rhus toxicodendron* or *radicans*, the creeping vine known as poison ivy. The effects produced by these plants upon the human skin, in point of diversity and period of incubation, differ widely from the physiological action of most other vegetable substances.

A frequent indirect cause of eczema also are the animal parasites, viz.: the itch insect and the various species of lice. 'Tis true they possess no such power of themselves, but the itching they provoke leads to scratching, and this to eczema. It may likewise be caused by undue pressure upon the skin by clothing, or by chafing of the skin about the joints, which often occurs in fat people and babies, in the former of whom the epidermis is made tender by maceration in the perspiration. The forms produced by the impediment offered to the local circulation by hæmorrhoids and varicose veins on the leg and consequent hyperæmy, have already been mentioned. Upon the scrotum also it may perhaps be traced to the same cause. Eczema is never born with a child, but may occur three or four days after birth, and then generally affects the head, where it is called "milk crust." No connection has been traced, as already stated, between its appearance there and the health of either child or nurse. In rachitis and the so-called scrofulosis it is often observed, although the skin affection may be healed without any effect upon or change in the constitutional disease. In women chlorosis and affections of the uterus seem to occasion it at times. Sometimes a person has gastric symptoms and diarrhœa come on suddenly, followed by an eruption of eczema on the lips and hands, whereupon the internal symptoms at once disappear.

Having said this little about our positive knowledge of the internal causes of eczema or of any apparent connection between it and constitutional affections, we have said all that is really known. It

has been said that it is contagious. We believe that the secretions of the inflamed surfaces are sufficiently irritating not only to cause the disease to extend to other portions of the skin over which they are allowed to flow, but also that by long contact with the same the skin of another person may also assume an eczematous condition, just as by contact with many other irritating substances. In this way eczema of the nipple may produce excoriations and eczema upon the tender mouth of the infant, or the profuse discharge from a scald head may by maceration induce the same changes upon the arm of the nurse which supports it. In any other sense than this, it cannot be considered contagious.

*Treatment.**—There are but very few drugs which exert any influence upon the course of eczema when introduced into the system through the stomach. Among these arsenic is undoubtedly the most valuable, and in certain obstinate conditions of the skin it will be found an aid to other means. Alone it may drive away the eruption after large and long continued doses, but as the tendency of this disease is always towards relapse, it will be found that the return is not delayed in the least by the effect of the arsenic. There are cases in which some constitutional treatment is necessary before a cure may be expected, as iron in chlorotic or cod liver oil in scrofulous patients, although these remedies by themselves have little influence over the cutaneous affection. Local remedies are more speedy, may be at once directed to the chief cause of the continuance of the eruption, viz., the itching, and are just as effectual in preventing and far more so in curing relapses than arsenic.

Among the countless remedies which have been advised in the external treatment of eczema, we may select a very few which will prove sufficient for our use if properly employed. It is strange with how little regard for detail are the directions in relation to treatment given by writers on cutaneous diseases. The modern French authors with fifty or more pages devoted to the description and ætiology of this disease, find two or three sufficient for all they have to say as to its treatment. The remedies they advise are placed in list form, unaccompanied by those minute directions as to the particular form or stage to which any one of them is especially adapted, so essential to successful practice. The English writers, though more full, are none the less vague on this important point, upon which our whole success in the management of this difficult disease depends. It is not enough to know or to say that oxide of zinc ointment, or oil of cade, or an alkaline wash is good in eczema. We must know just at what stage to apply each, for that which acts well in one condition of the skin may be the very worst application possible in another. The remedies which a long series of accurate and definite experi-

* With regard to the relative importance of local and internal treatment in chronic diseases of the skin, we beg leave to refer the reader to some remarks on this subject in an article on psoriasis published in this Journal, vol. lxxiii, p. 309.

ment has proved to be of value may be arranged in four classes, namely: the application of cold; alkaline; and tarry preparations; and mineral astringents. A few general rules may be laid down for their employment, but our treatment in every instance must be governed by the intensity, the extent, the duration and the seat of the affection. Before proceeding to the application of any remedy, it is necessary in every case to examine the condition of the parts beneath by the removal of the crusts and other morbid products. This may be best effected by the use of oils, under the continued application of which they become soft and are readily detached. Upon the hairy portions of the body it may be necessary to use in combination with them some sort of soap, and a strong solution of the German soap in alcohol will be found to be the most cleansing preparation for this purpose. Fats are much better for this object than poultices, inasmuch as they do not, like the latter, aggravate the disease by maceration and warmth. Having thus laid bare the eczematous portions of the skin, we may then ascertain whether we have to do with an *Eczema rubrum* or *E. squamosum*, and by raising a fold how much infiltration there is, for upon this latter circumstance our prognosis must rest. A papular or vesicular variety before the development of crusts is of course recognized without such preliminary treatment. A simple and acute papular or vesicular state will generally yield to slight remedies, such as the mineral astringents. Whenever there is added to this an erythematous condition, cold water applications are called for, and in all cases where there is burning and itching cold water is by far our most useful remedy. When the infiltration is deep, we have a severe and obstinate process to deal with, and must use harsh means. It is in such cases we bring into action the powerful potash preparations. The tars are to be reserved for the later and scaly stages of the affection. As to the form of the preparations used and the mode of their application, these also are matters of great importance. There is a right way and a wrong way to use even a simple wash or an ointment, and we have sometimes succeeded with the very preparation which had previously failed in our hands, by applying it in a different manner. We may perhaps prevent repetition by giving in a body the various preparations of the four classes which are most frequently used in Prof. Hebra's clinic, and which we have found to be most serviceable.

1st. Cold water. To be always applied upon thin cotton or linen cloths, at most of two thicknesses, and to be changed every two or three minutes. Except in acute attacks three applications a day of half an hour each will be sufficient.

2nd. Solutions of pure potash in water, 1 part to 8, 1 to 4, or 1 to 2. The first two to be used as fomentations for a short time only, and upon small surfaces, the last and concentrated form to be applied at intervals of a week by a brush, and to be immediately washed off and followed by cold water. In the same class is the *schmier*

seife (German soap), either alone or dissolved in alcohol, 2 parts to 1, 1 to 1, or 1 to 2. This is rubbed upon the diseased surface by a flannel or sponge, and immediately washed off with cold water. To be used once or more daily. Instead of the German soap another preparation, composed of glycerine and potash in the same proportion, and called kali-glycerine, answers a similar purpose and is less offensive. All of these should be used carefully but boldly.

3d. The tarry preparations which were exhibited to the Society at a former meeting,—*ol. cadinum*, *ol. fagi*, *ol. rusci* or *betulae*, and common tar. *Oleum cadinum* is the most convenient form to be obtained here. It should never be used by itself, but is best diluted with glycerine or alcohol.

4th. In the last class is, first and most important, a solution of corrosive sublimate in water and glycerine, gr. ij. to ℥ j., to be applied upon a thin cloth for 20 minutes twice a day, the cloths to be wet three times, and to be followed by the cold water as above. Black wash of half strength, when extensive excoriations prevent the use of the sublimate, to be applied upon cloth at will. Both of great service in suppurative forms. Oxide of zinc ℥ i. to Fat ℥ i. to be rubbed gently into the skin with the finger, until none remains visible. When there is moisture and free exudation, or when fat cannot be borne, the zinc should be mixed with powdered starch in the same proportion, to be sprinkled freely over the inflamed surface. These are all the *materia medica* which are necessary in the treatment of this affection. All the many others of any value, recommended in books, belong to one of these classes, and produce similar effects.

Upon the *scalp* we begin by removing the crusts. This done we make use of the soapy wash two or three times a day, and as long as it produces excoriations or the minute vividly red points, which are the openings of the follicles. When it ceases to create burning, pain and excoriations and the infiltration of the skin has subsided, we substitute for it or mix with a weak solution of the same the *ol. cadinum*. After each application of the potash wash we should always apply the water till the immediate effects pass off. Should the tar not be borne in this stage even, we may substitute the zinc ointment, or one of white precipitate of the same strength. For the *ears* the mercurial washes are best adapted. The simple and frequent manifestations upon the *face* will generally yield easily to the sublimate wash and constant use of the water, but in some obstinate cases we are obliged to resort to the severest applications, as the concentrated solution of potash. This should be painted carefully over the bare surfaces of disease. An immense amount of secretion is immediately poured out from the irritated parts, and vesicles form which are soon obscured by the formation of a thick crust. Cold water should be used freely till the pain subsides, which is in a few minutes, and the process should be repeated in a week if itching indicates that the disease is still active. The most inveterate forms

will yield to this treatment, and no scars are ever formed. Upon the *body* and *limbs* eczema must be treated in accordance with the general rules above given. Upon the *hands* the sublimate wash will be found of most service, and when it is confined to a small patch the caustic potash may be used with advantage. Whatever remedies are used we must never forget to warn the patient of the danger of an aggravation of the disease at any stage of the treatment, or of a return of it after the cure seems complete. Should this take place, we must begin again, and always act upon a fixed principle, however obstinate or however often it repeats itself. In this way by persistent efforts we may generally succeed in curing the most obstinate forms of eczema.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 147.]

DR. HUNT, of the U. S. Navy, writing from Washington, says concerning the cases which came under his observation:—"The disease frequently comes on in the form of a common cold, attended with cough, sore throat, redness of the eyes, and a pain in the right pap. In about forty-eight hours a fever takes place, with increased pain in the breast, and frequently delirium. The pain is so severe for several days as to keep the patient in a state of constant agony." "This disease was certainly a pneumonia, attended in the commencement with typhoid symptoms, which quickly changed to a typhoid state."* "Dr. Robert Dunbar, of Winchester, Va., under date of February 22d, 1813, says that the subjects were generally from 12 to 20 years of age. "The symptoms were not uniform, but varying in proportion as the disease was marked with malignancy or mildness. Its attacks were accompanied with great lassitude, rigor, long-continued chills, great prostration of strength, unusual depression of spirits; eyes suffused, with a slight tinge of redness, accompanied with a glassy appearance. The pupils, in the cases I attended, were but little dilated; stupor, delirium and coma, with pain in the head, stomach a little affected with nausea, occasionally amounting to a propensity to vomit."

There was soreness over nearly the whole body; in almost every case sore throat and difficult deglutition were found. In a few hours after the attack the jaws were sometimes fixed; opisthotonos existed, the head being drawn back and the spine curved. The pulse was irregular, generally weak, and often not perceptible. Petechiæ and vibices were seen generally over the whole body.†

A committee of the Medical Society of the County of Saratoga made a report in regard to what was called the "winter epidemic,"

* Medical Repository, N. S., vol. i.

† Ibid.

in which they say:—"The bilious pneumonia became epidemic in some towns in this County early in December, 1812, in most others in January, 1813. In one or two it did not appear earlier than the first part of February.

"The first stage commenced with a cold chill, which has sometimes lasted from four to twenty-four hours or longer, but it generally continued from thirty minutes to two hours.

"During the continuance of the chill, the patient is generally affected with a violent pain in the head, back, loins and some part of the thorax. It sometimes, at the first, extends to the limbs, resembling acute rheumatism; at other times to the bowels, resembling enteritis."

There were pneumonic symptoms—pain, cough and bloody sputa. Nausea was common. The pulse during the cold stage was weak, small, and sometimes imperceptible at the wrist.

"Second stage. When the fever did not terminate about the fifth or seventh day by a favorable crisis, the following symptoms generally ensued:—the pulse became full, soft and weak, from 90 to 100 strokes in a minute; the tunica adnata of the eye and skin became yellow, the tongue dry and coated with a dark brown, except in a few cases where it was smooth and glazed, of a dark red; heat and dryness of skin much more considerable than in the former stage; the bowels swollen and elastic."

They did not consider it different from the pneumonias of fifteen or twenty years before.*

Dr. Job Wilson, in his treatise on the "Nature and Treatment of Spotted Fever," has given an account of the disease as it appeared previous to 1815 in New England. February 16th, 1812, he was called to a case in which sudden and violent pain in the head was the first symptom; this was soon followed by severe pain in the right side of the thorax. The patient recovered. In March, Dr. Wilson saw other cases, in which the lungs were affected. He describes the symptoms of the disease thus:—"Extreme cold shivering, acute pain in the side or head, but occasionally in the hands or feet. Sometimes it affected the bowels and back in the form of colic or dysuria. In other cases, the most acute pain would be felt in the ear, the jaw, or even in a tooth. The breathing was in most cases difficult, attended with cough, and often with a bloody expectoration. Delirium was frequent, but not a uniform symptom. Some were affected with an unmanageable, furious delirium, similar to that which attends phrenitis. Others were affected with low muttering and comatose delirium, attended with a disposition to sleep. Some few, as the disease declined, became insane; but the insanity was of short duration, and entirely left them on the recovery of their strength. Difficulty in voiding the urine was almost a constant symptom; the hands and face were generally of a leaden color, and moderately swollen; a

* Medical Repository, N. S., vol. ii.

very slow motion of the blood in the capillaries was very perceptible, by making a slight pressure on these parts with the point of the finger; effusion of blood or lymph in the rete mucosum and cellular membrane, as likewise effusions in the sockets of the eyes (the eye-balls were occasionally suffused with blood); deep effusions in the extremities, lying in immediate contact with the periosteum, and occasionally occupying the whole limb, and extending from joint to joint; effusions of blood and lymph in the cavity of the thorax, in the cells of the bronchia, and in the brain, &c. Blood was occasionally discharged with the urine, and in some cases from the bowels, resembling dysentery. Raising blood from the lungs was frequent. A discharge of blood from the nose was frequent, and not an unfavorable symptom. He mentions, also, an eruption of hard, white pimples, and likewise a rash "similar to ring-worms."

In 1813, the same disease occurred in New Hampshire and Vermont; in some places with great mortality, in others in a very mild form. "In 1812, the lungs were almost universally affected, and death was caused by suffocation, &c. In all the cases which I witnessed in 1813, the lungs were not so generally affected; the head appeared to be the part which suffered most, and the patients appeared to die in convulsions, apoplexy, palsy, &c." Subsequently this disease occurred less frequently and was less fatal.

Dr. Wilson gives two *post-mortem* examinations, which have not yet been noticed. One was of a lady, who was attacked April 27th, 1812, and died on the fourth day, from suffocation. On opening the thorax, there was found extravasation of lymph of a yellowish appearance in the cellular membrane; and also extravasations of blood into the substance of the lung, having a dark color. The same was seen on the internal surface of the pericardium, though much larger. The pericardium contained nearly a pint of serum. The upper portion of the lung was heavy, sinking in water; the air-cells were filled with a yellowish lymph. "This viscous was of a dark red color, and adhered, throughout its whole surface, to the pleura and diaphragm, saving the posterior surface, where there was a large collection of lymph." The cavities of the heart were distended with very dark blood. The liver was very much engorged and of a dark red color, except in spots where it seemed to be healthy.

In another case where the patient, a young man, 17 years of age, died on the eighth day of the disease, there was found extensive extravasation of blood into the lungs, some of which had been absorbed; the upper portions were very much engorged with blood. In the brain also was found more or less extravasation in the membranes, and several small deposits of lymph on the surface; much of the blood which had exuded from the vessels had been absorbed.

Dr. Utley, of Lyme, Conn., recognized two varieties, one where pneumonia existed, the other without any affection of the lungs.

The second was "ushered in with a sense of distress at the præ-

cordia or pit of the stomach, thence ascending to the head, as a pain or dimness of sight; this returned down along the spine, attended sometimes with universal paralysis.* Prostration was extreme.*

Dr. Kercheval, of Bardstown, Ky., says, "It happens in a certain proportion of the cases that the head is the primary seat of the disease; the chest at the same time remaining free from any local disorder."†

Dr. Ira Bascome, of Granville, N. Y., says that petechiæ seldom appeared. He found the lungs more severely affected than in the spotted fever described by Huxham, Pringle, and others. Among the symptoms, he mentions, chills, a low quick pulse, languor, pain in one side, nausea, dull pain in the head, livid countenance, soreness across the temples and eyeballs. The sickness, vomiting and headache were sometimes severe from the beginning. In others common catarrh first appeared; suddenly it assumed the most alarming symptoms; a violent pain, most frequently in the right side. These are the principal symptoms; "but others too numerous to mention have appeared in various parts of the country." "As far as I have been able to learn it is the same disease which had prevailed in some parts of New England and New York for several years previous, under the various denominations of spotted fever, catarrhal fever, peripneumonia notha, &c."‡

Dr. B. Vaughan, of Hallowell, Me., found the spots to be usually wanting. He adds to the list given by Dr. North of the diseases for which it may be mistaken—"pleurisy and other diseases of the chest, nervous headache, palpitation of the heart, earache, sometimes followed by discharges from the ear, lethargy, stretched and shining skin as in dropsy, and stiffened muscles," sometimes epilepsy. He mentions the affection of the throat. The head was not specially affected.§

The disease occurred in Maine in 1811, '12, '13 and '14. Dr. Hazeltine considered it the same as spotted fever, and the symptoms agree with the description given by Drs. North, Woodward, &c.¶

Ennalls Martin, M.B., of Maryland, in the winter of 1813 and '14, found headache a very prominent symptom and the pain in the thorax less marked.¶

Dr. Joseph Trent, of Richmond, says that the force of the disease was sometimes expended on the throat and fauces. The muscles of respiration and the glottis were spasmodically affected. Large glandular swellings occurred about the neck.**

Thomas P. Hereford, of Middlebury, Va., found that it appeared under varied forms affecting the lungs, brain and throat, and generally of a typhoid character.††

Dr. E. Simpson Davis, of Milledgeville, Ga., met with cases from

* Medical Repository, N. S., vol. ii.

¶ Ibid.

† Ibid.

** Ibid.

‡ Ibid, vol. iii.

†† Ibid.

§ Ibid.

April 21st to April 28th, 1815. Glandular affection of the throat was common, and there was no apparent congestion of the lungs. *

Dr. John Kerr notices the disease as it appeared during 1813 and '14 in Natchez and Eastern Mississippi. In the winter of 1814 he saw many cases of unusual malignancy where the breast, head and throat were affected. The disease was not so frequent nor so severe as at the North. *

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 20, 1866.

DEATH OF DR. A. A. GOULD.

DR. AUGUSTUS A. GOULD died in this city, at 5, A.M., of Saturday, the 15th, of cholera, after an illness of a few hours. The suddenness of this announcement caused a thrill through this community which is only felt when a good man dies. Friday at noon saw him engaged in his professional avocations, without any indication to his friends of the near approach of the destroyer; the next morning his place of usefulness was vacant forever. The event is so recent, the shock from the loss of one whom we have felt privileged to call a friend for many years is so great, that we can attempt to add but little to the simple announcement which we have given above. His death makes a wide gap. As a physician he occupied the foremost rank; as a naturalist his name is indissolubly connected with the annals of American science; as a high-minded, conscientious, self-sacrificing man, his death is felt at this moment by a very large circle of mourning friends as bringing to them a loss which never can be repaid, and laying upon them a grief which only the soothing hand of time can alleviate. Another and most honored member of the medical profession has expressed in more fitting language than we can command his just appreciation of the many admirable and winning qualities which endeared him so strongly to all who knew him. Not one of them will not most cordially respond to the truth of all which he has so admirably said.

At a special meeting of the Suffolk District Medical Society, on Saturday evening, the 15th inst., called to take appropriate notice of the event which had deprived it of one who had long been one of its most prominent members, the President, Dr. Bowditch, opened the meeting as follows:—

GENTLEMEN—ASSOCIATES OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.—You have been called here this evening in consequence of the sudden death of one of our most esteemed and learned associates, one who but a few months since was President of the Massachusetts Medical Society. I refer to Dr. A. A. Gould, of this city. It seemed right to myself and others that we should commune with one another at such a time. I beg leave to call upon one older and abler than myself, Dr. Jacob Bigelow, who has prepared some remarks to be offered at this meeting; and if, subsequently, you wish to hear from me some few autobiographical sketches, which I had the melancholy pleasure of perusing this morning, I shall be most happy to give them as I have drawn them from his original manuscript.

Dr. Bigelow remarked:—

The melancholy truth that the best and wisest of our profession, the men to whom society looks for counsel in its distresses, and for rescue in its moments of

* Medical Repository, New Series, vol. iii.

† Ibid.

danger, are themselves but broken and unreliable reeds, is this day most painfully forced upon us. The appalling intelligence that one of our most prominent physicians, long respected and beloved, and but yesterday engaged in the active ministration of his professional duties, has suddenly fallen under the stroke of a pestilence that walks in darkness, and against which he had been vainly arraying, for the sake of others, the powers of a philosophic mind, the earnestness of an inflexible inquirer for truth, and the skill of a lifelong career of experience, and of laborious and vigilant observation and study; and the fact that all these have been as dust in the balance, against the unalterable laws of Providence—are things which may well make us thoughtful and solemn.

It is unnecessary to remind you that Dr. Gould, late President of the Massachusetts Medical Society, was a man of wide and general culture, and that he stood in the highest rank of professional eminence. He brought to the service of his friends and of society, a mind gifted by nature, disciplined by labor, and enlarged and enriched by study. There was no department in the multifarious circle of his professional pursuits that he did not illustrate and adorn. He was skilful as an anatomist, as a pathologist, and as an honest and intelligent practitioner of the healing art. He had the wisdom to perceive that the devotion which confines itself to an exclusively professional path, and ignores the value of other collateral studies and pursuits of practical life, inevitably narrows the mind, and abridges its sphere of usefulness. Dr. Gould was a general scholar, an accomplished naturalist, a proficient in the physical sciences, a successful writer and teacher, and a lover of learning for its own sake. His services in most of our scientific institutions, to some of which he gave a creative impulse, and in the care of our sanitary concerns, and charitable medical establishments, have been long felt and appreciated.

In the meetings of our scientific and professional associations his attendance was assiduous and welcome. Every one among us will recollect with grateful pleasure his friendly and beaming countenance, his judicious and instructive remarks, his respectful consideration for the claims of others, and above all his unfaltering regard for scientific truth, and his abhorrence of assumption, pedantry and charlatanism of every sort.

He had scarcely more than arrived at the meridian of active and useful life. The years which had passed over him served to strengthen and mature the stability of his character. He was a pillar, not easily to be spared from the fabric of our Society. We looked forward to him as one of those who were to be entrusted with the safe keeping of the social, truthful and honorable character of our profession. In the order of nature he should long have borne the responsibilities of those who had preceded him in years. He should have stood where I now stand, and tendered to others the tribute of remembrance which we now unavailingly offer to him. He is happy in having terminated without protracted illness or pain a useful and honorable life, carried through to its completion without a cloud upon his intellect or a blemish upon his reputation.

Dr. Bowditch then resumed:—

Dr. Gould was born April 23, 1805, at New Ipswich, N. H., and under the shadows of its amphitheatre of mountains he drew in his earliest breath of physical, intellectual and moral life. In physical culture he became a stalwart young farmer, able at the age of 14 to take supreme control of his father's farm. The beauty of the hills poured into him certain moral qualities which, he thinks, in after life, sustained him under temptations which wrecked others who had not had the same benign influences. Probably his birthplace first led him to those studies which, intellectually, were always his chief delight, and upon which mainly his European, and, I may say, his American reputation really depends—I mean, to his studies in Natural History. In early life, he attended school in summer and winter. When about 12 or 13 years old, and when needed on the farm, he had only the three months of winter for his studies. He however attended the academy of the place, and learned Latin and Greek, and, in fact, prepared himself for college, knowing in the end, as he thought, as much as his preceptor; but on his entrance into Harvard, he found himself unable to cope with the Boston, Exeter and Andover boys, and had, as it were, to begin anew. Almost penniless when

he entered, he struggled on, taking the place of Registrar's freshman, and doing some menial services in order to keep at college. By these means, with the strictest economy, he fought his way through.

For two years after his graduation he was a private tutor in the family of Mr. McBlair, at Baltimore. In 1825, he entered as a pupil in medicine the school then kept by two men now venerable in years and in honors—Drs. James Jackson and Walter Channing, both of whom survive their pupil. In 1829–30, he was house-pupil under them at the Massachusetts General Hospital. It was there that I first met him, when I, as a pupil younger than himself, staid a few weeks at the Hospital in place of his colleague, the well-known and admirable man and surgeon, Willard Parker, of New York. How pleasant come up to me the gracious smile and kindly courtesies extended to me at that time by Dr. Gould! They were the type of all his subsequent life in his relations with me. Ever willing to extend a helping hand, and ever gracious in giving from his well-stored mind to me who sought to gain knowledge from it.

In 1830, he received his diploma of Doctor in Medicine.

In July, 1831, he became a member of the Baptist church, in which he continued ever after a most worthy associate. He settled as a physician in Boston, and he met, as he says, with moderate success, during the early part of his practice "struggling for dear life," and even as late as 1850, with his numerous family of eight children, he needed "all the dollar visits the public required of him in order to make a competence." He had married, November, 1833, Miss Hannah Cushing Sheefe, who now survives him.

During college life, following the bent given him in his boyish tramps over his native hills, he had become much interested in Natural History, and as he had much leisure time after his medical graduation, "because every man needs some by-play to fall in with the serious drama of life, and having no fancy for politics, for boon-companionship or for loafing," he devoted himself to Natural History, particularly conchology, as a branch of science somewhat connected with his profession. The result was that the whole of those spare moments, which by most men are allowed to glide away unattended to, were by him devoted to objects of real value, and which gave him no mean reputation on both sides of the Atlantic. So far as medical business-prosperity was concerned, he says it would probably have been better if they had been passed in listlessness or sleep; but so far as real happiness was involved, he thought he could not have done better.

He had offices of trust without number; those of profit were few. His principle was to do whatever he could, whether profit came of it or not. He has done a good deal of such work with little reward, save what usually follows (as he thought) gratuitous service, ingratitude and injury.

In early professional life he had lectured. He also gave instruction in Botany and Zoölogy at Harvard College, and before a small class of medical students.

His published and manuscript works were as follows:—

Translation of Lamarck's Genera of Shells.

Translation of Gall's Works.

Translation of Rostan on Diagnosis.

Invertebrate Animals of Massachusetts. (Not printed.)

Principles of Zoölogy, in connection with Prof. Agassiz.

Mollusca of the U. S. Exploring Expedition. (In press.)

Completion and Editing of Dr. Binney's posthumous work on the Mollusca of the United States. (In press.)

He also wrote numerous articles in journals, scientific and literary, principally the former, and prepared some of the State Registration Reports. He made at times manuscript catalogues of several private libraries, such as those of George Ticknor, Rev. Dr. Gardner, John Lowell and Abbot Lawrence. But the most laborious work he ever undertook was the cataloguing, in four folio volumes, of 50,000 pamphlets for the Boston Athenæum, for which he received the munificent reward of \$250.

His various publications, thus made unselfishly and with a true scientific zeal, brought him in contact with the best minds in this country and in Europe. Con-

sequently, they enrolled him among the members of their various societies, as the following imperfect list fully shows:—

Rhode Island Society of Natural History.

Connecticut “ “ “

Academy of Arts and Sciences, Philadelphia.

American Academy of Arts and Sciences.

American Philosophical Society, Philadelphia.

Natural History Society, Quebec.

Northern Academy of Arts and Sciences.

Imperial Mineralogical Society, St. Petersburg.

Royal Society of Natural History, Copenhagen.

Natural History Society, Athens, Greece.

He was also an intimate correspondent of Owen and other learned men of Europe. Other Societies than those already given have more recently thus honored him by electing him as their associate.

In the midst of this good reputation among scientific men, in the height of professional success and when apparently in good health, he is suddenly cut down, and in ten hours ceases to live.

I leave to others to portray the peculiar features of his character and to justly estimate his standing as a physician. But I am sure that there is no one within the sound of my voice, who has ever met our associate's cordial smile, and experienced his ready willingness to assist with his learning, who will not join with me in feeling that we have sustained a real loss, and that there is no one to fully and exactly fill his place.

The President then stated that in accordance with his own views and those of Dr. Bigelow, no resolutions had been proposed. These have become hackneyed, and are too often unmeaning.

The best resolution that could be offered, would be the resolution in our own hearts that each would endeavor to do every duty as our dead friend has done his during his whole career.

On motion of Dr. H. G. Clark, it was voted that the remarks made by Dr. Bigelow be adopted as the sense of the Society; and on motion of Dr. Williams, it was voted that this sentiment of the Society be communicated to the family of the deceased, and that Dr. Bigelow's remarks be published in the Boston Daily Advertiser and the Boston Medical and Surgical Journal.

Dr. Cotting, after giving, by request, an account of the last illness of the deceased, remarked that he had known Dr. Gould intimately from his student days. He was a true and warm friend, who trusted much, and trusting was sometimes disappointed, and in this much troubled. Dr. Cotting did not doubt that every man in the profession in this State would feel, as the sad intelligence reached him, that he had lost more than usually, a friend.

On motion of Dr. Parks it was voted: that, if a public funeral be permitted by the family, the members of the Society be notified to attend.

The following is the account of the case by the attending physician, Dr. Cabot: Dr. Gould had been as well as usual and attending to business, when about noon of Friday, the 14th inst., he had two watery discharges from the bowels. During the afternoon he had three or four more copious discharges of the same character. Between 6 and 7 o'clock vomiting began, and shortly before 8 o'clock very severe cramps occurred in the feet and calves of the legs. About quarter past eight he had a very copious discharge, more than half filling the vessel, presenting the rice water appearance, *but having some fecal odor*, and containing some small particles of fecal matter stained with bile. In the course of an hour these symptoms were gone, and the patient seemed quite comfortable and had a good pulse. He had no more diarrhœa, or cramps, or vomiting, except that he vomited a dose of aq. ammon. There remained an unpleasant coldness of the hands; and from that time the patient steadily failed. At 2, A.M., he was in collapse—the face and hands shrunken and livid, the skin cold and clammy, the radial pulse absent, the voice almost inaudible. He was restless and uneasy, took ether occasionally, apparently to relieve the uneasy, distressed feeling which accompanies collapse,

and notwithstanding the coldness of the skin could not bear the encumbrance of the bed-clothes, even the lightest. All efforts at restoration by stimulants, administered both by mouth and per anum, were without effect. He continued steadily to fail, and died at 5, A.M.

The autopsy was made at 4, P.M., on the 15th, by Drs. Langmaid and Swan, of whom the latter gave the following account:

The rigor mortis was very great. There was some hypostatic redness of the trunk, and marked lividity of fingers and nails.

The general result of the examination of the internal organs showed a loss of fluid everywhere but in the intestines. The lungs were dry and doughy, the liver small and thin edged, the spleen of medium size and firmness, the kidneys firm and close in texture, but inelastic, the gall bladder shrivelled and containing a little very thick, dark bile, the urinary bladder quite empty and contracted, the blood thick and dark, entirely free from coagula, and accumulated in and near the heart. The stomach and intestines, on the contrary, contained, by estimate, upwards of a quart and a half of serous fluid, rendered dull white and turbid by the presence of a large quantity of what, under the microscope, proved to be mainly epithelium, more or less disintegrated, together with a few vibrios, and microscopic particles apparently derived from food. In a portion of the small intestine the fluid had a distinct pink hue. It was accumulated mostly in the jejunum and ileum, but there was a considerable quantity in the cecum, and in the ascending and a portion of transverse colon; while the rest of the large intestine was contracted to the size of the thumb or forefinger, as if its contents had been discharged by the mere force of gravity, or possibly due to the stimulation of the large brandy enema. The enema is said to have been retained, but the absence of alcoholic smell and the condition of contraction, would indicate that it had eventually passed away. The stomach and intestines themselves appeared healthy. The heart was perfectly sound, and so the lungs, excepting an insignificant deposit of cretaceous tubercle at the very apex of each. The pleurae of the right side were firmly and universally adherent; at the left apex there was a circumscribed adhesion, the rest of the lung being entirely free.

Messrs. Editors,—The Editorial in your last number, upon the "Metric System," brings painfully to my mind with how slight a practical knowledge of medical weights and measures a physician may go into practice. The fact that a more thorough acquaintance with these should be required is evident, and, in these days of outcry for reform in medical education, will probably meet with some attention. I only wish to make a suggestion, however, which applies equally well to a theoretical or practical knowledge of the two standards—viz., that it is perfectly practicable to teach the simple French system in connection with our complex system of drachmæ, uncia and octarii. A facility in reducing metrical weights and measures to those in use, while requiring but a small sacrifice of time in its acquisition, would be a great aid in the study of French medical literature and of the scientific literature of nearly all countries. It would also be the simplest manner of preparing a way for the introduction into this country of the only system worthy of modern science.

M.

Physiological Action of Narceine.—In the last number of the *Journal de Chimie Médicale* there is an abstract of M. Linne's researches on the above subject, from which we perceive that the following conclusions have been arrived at:—1. Narceine is unquestionably of all the alkaloids of opium that which has the greatest narcotic power. 2. In the majority of cases morphia and codeia do not produce as sound or as prolonged sleep as results from the use of narceine. 3. Narceine differs from the other alkaloids of opium in producing little perspiration, and in causing no loss of appetite or nausea. 4. So far from producing constipation of the bowels, it causes relaxation, and, in large doses, actually gives rise to diarrhoea. 5. It not only produces sleep, but diminishes pain. 6. It has one peculiar action; it suppresses the flow of urine. For this reason, M. Linne thinks it

might be advantageously employed in cases of nocturnal incontinence of urine amongst children. But it seems to us that, until its action can be shown to be on the bladder rather than on the kidneys, its employment in such cases would be highly improper.—*London Lancet*.

Cryptogamous Origin of Intermittent Fever.—In speaking of Dr. Salisbury's researches, the *Atlanta Medical and Surgical Journal* says:—

"We take pleasure in announcing that a valued and talented contributor for this Journal is investigating this subject, and will, perhaps in the next number, furnish our readers with some valuable suggestions on the Cryptogamiae, and of their probable connection with the production of malarious or remittent and inter-mittent fevers.

"The experiments of Dr. Salisbury, some of which have already been published in the June number of this Journal, seem to be very conclusive in many particulars. Should they be verified by others, to the extent of settling permanently this question, we will have prominently before us the great advantages derived from improvements in the modes of scientific investigations."

Gallic Acid in Congestion of the Kidneys.—In nervous affections, due to congestion of the kidneys, or of the ovaries, I have found the use of gallic acid, in four or five grain doses, six times a day, of singular efficacy. It is much better to give it in frequently repeated doses than otherwise, as it is less apt to disturb the stomach.—*Brown-Sequard*.

State Hospital for the Insane in Connecticut.—The Connecticut Legislature recently passed a law creating a State Hospital for the Insane, which is to cost \$200,000.

THE course of University Lectures on Ophthalmology, by Dr. Williams, will be delivered at the City Hospital on Fridays, at 11, A.M.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 15th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	67	50	117
Ave. mortality of corresponding weeks for ten years, 1855-1865	48.3	48.1	96.4
Average corrected to increased population	00	00	103.94
Death of persons above 90	0	0	0

MARRIED,—At Great Falls, N. H., 11th inst., Dr. Charles W. Oleson, of Bloomingdale, Ill., to Miss Abbie L. Bartlett, of Great Falls.—In Calais, Me., 12th inst., Dr. E. Howard Vose, of Gorham, Me., to Miss E. Maria, only daughter of C. R. Goodnow, Esq.

DIED,—At New Orleans, 5th inst., Dr. Charles P. Crane, formerly of Canton, Mass., 56.

DEATHS IN BOSTON for the week ending Saturday noon, Sept. 15th, 117. Males, 67—Females, 50. Accident, 3—apoplexy, 1—disease of the brain, 4—bronchitis, 1—burns, 1—cholera, 2—cholera morbus, 3—cholera infantum, 23—consumption, 12—convulsions, 1—croup, 2—diarrhea, 7—dropsy, 3—dropsy of the brain, 2—drowned, 2—dysentery, 12—erysipelas, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 3—malformation of the heart, 1—hernia, 1—hip disease, 1—infantile disease, 2—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 6—measles, 1—old age, 3—paralysis, 1—peritonitis, 1—premature birth, 1—rheumatism, 1—smallpox, 2—unknown, 5—pistol wound, 1.

Under 5 years of age, 59—between 5 and 20 years, 6—between 20 and 40 years, 22—between 40 and 60 years, 19—above 60 years, 11. Born in the United States, 85—Ireland, 26—other places, 6.

THE
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THURSDAY, SEPTEMBER 27, 1866.

No. 9.

COMPARATIVE MERITS OF INCISION AND DILATATION OF THE
MOUTH OF THE WOMB IN CASES OF DYSMENORRHOEA, &c.

[Read before the Boston Society for Medical Improvement, August 27th, 1866.]

By D. HUMPHREYS STORER, M.D.

EVERY member of this Society must have often been impressed with the tendency which exists in the profession to be unduly influenced, I might, perhaps, with propriety say *overawed*, by the opinion of those who have attained a commanding position in our ranks. This tendency I consider an exceedingly unfortunate one—it destroys self-reliance, individuality; it prevents the physician from faithfully performing his duty; inasmuch as he yields his dearly bought and invaluable experience to the decided, oracular dicta of others. However much we should value and endeavor to profit by the instructions of our fellow-laborers, we should never be willing to relinquish our own convictions, unless satisfied we are in error; until it is clearly shown that the course we have pursued, and are still pursuing, is erroneous. These thoughts have been suggested by the following circumstance. Since our last meeting, a gentleman called upon me with his wife, who desired my professional advice. She had been an invalid for some length of time, complaining more particularly of dysmenorrhœa. I carefully examined her condition, and found she had a retroflexion of the uterus, the body of the organ being so completely bent upon the commencement of the neck as to cause almost a complete obstruction of the cervical canal—admitting the passage only of a very small metallic dilator. I told the husband what derangement existed, and the course which should be pursued to remove it; that I should advise the introduction of sponge-tents to produce dilatation, and, when this should be accomplished, the wearing of a stem-pessary until the distortion should be permanently overcome. He at once told me that Dr. —, who had seen his wife, stated that the plan I now suggested would *formerly* have been pursued—that it was not now, however, practised by the profession, but that *incision of the neck* was the only approved method.

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As the physician referred to has been a practitioner for quite a number of years, and consequently must have seen a greater or less number of cases similar to the one now spoken of, he evidently in this instance tacitly yielded his opinion to the *weight of authority*.

I think he must have read an article on "Dysmenorrhœa, Metrorrhagia, Ovaritis and Sterility, depending upon a peculiar formation of the Cervix Uteri, and the Treatment by Dilatation or Division," which was published in the last volume of the *Transactions of the Obstetrical Society of London*, by Robert Barnes, M.D., President of the Society, and also that he must have coincided with the remark of Dr. Marion Sims, made at the meeting at which that communication was presented, "that that Society must be taken as the representative of professional opinion on any subject falling within its domain." Now, however willing we may be to admit the value of the *Transactions* referred to, we are unwilling to allow the infallibility of any, even of the *most distinguished* of that Society. And even at the meeting referred to, it was evident that no little diversity of opinion existed between Drs. Barnes, Baker Brown, Greenhalgh, Routh, Savage, Hewit, Wyner Williams and Sims, as to the location of the obstruction in dysmenorrhœa, and the local treatment, whether by dilatation or division.

Thus, Dr. Barnes considers the "seat of the obstruction," to use his own words, "almost invariably at the os externum. The obstruction is due chiefly to the *small, round os itself*; partly to the pointed, elongated form of the lower part of the vaginal portion, and partly to an unusual rigidity of structure of this part, which impedes the expanding action natural to the healthily formed os uteri."

Mr. Baker Brown, on the contrary, differed from Dr. Barnes as to the seat of the stricture; he believed it to be in the *cervix itself*, generally accompanied by narrowing, contortions, and reflexion of this canal—the results of inflammation.

Dr. Greenhalgh considered, from a long experience, that in a great majority of cases the stricture exists *at the internal os uteri*.

Dr. Routh coincided with Dr. Greenhalgh.

How utterly absurd to allow our judgment upon *this point* to be swayed by the opinions of either of the gentlemen above quoted, when the experience of every week assures us that the obstruction referred to may, and *does*, exist at any point from the outer to the inner os uteri.

But especial reference I would make as to the manner of *overcoming this obstruction*, wherever it may exist.

Drs. Barnes, Baker Brown, Greenhalgh and Sims, strongly advocated the employment of the metrotome or hysterotome; that a free incision be made; and Dr. Greenhalgh urged that the *internal os* should be dilated as well as the external os.

In other words, after the profession have for a series of years considered that, in the vast majority of cases, a contracted, *an almost*

impervious os and cervix uteri may be dilated, and in many instances the suffering produced by this impediment removed by the employment of metallic dilators or sponge-tents, we are told by the President of the Society referred to, that "*incision* is now considered not only as justifiable, but as the *only efficient and permanent remedy* for dysmenorrhœa." Mr. Baker Brown, Drs. Greenhalgh, Routh and Sims appear to have coincided with this view of the subject.

And why is this plan so strongly advocated? Dr. Barnes says:—"Hæmorrhage, pyæmia, cellulitis, peritonitis, have undoubtedly followed dilatation; and it is certain that in many cases, however good the dilatation effected by bougies or tents may appear at first, it is *not of long duration*. I suppose there is no dilatation by instruments more powerful than that effected by pregnancy and labor, yet after giving passage to a full-grown child, the peculiar cervix will sometimes completely resume its old vicious form."

Mr. Baker Brown agreed with Dr. Barnes "that *dilatation* was an *inefficient* and only temporary remedy for dysmenorrhœa arising from the stricture of the canal."

Dr. Routh "had seen *cellular abscess* and *death* follow the use of sponge-tents."

We remember having seen, in some New York journal a year or two since, similar remarks to have been made by Dr. Fordyce Barker and others respecting the employment of *sponge-tents*; that they had seen injurious results produced by their employment. It would be presumptuous in the extreme for me to doubt the statements of these gentlemen; I believe they stated the truth; I allow all they utter *may* occur. But is any known remedy *always* reliable? Is any known operation always successful? Is not an invalid sometimes *made the sicker* by the dose administered? the suffering one *made permanently* a sufferer by the surgeon's knife? May not some of the evils thus produced by sponge-tents be unnecessary? May not the time at which they are introduced, the size of the tent, the manner of its introduction, influence the effects produced? Not unfrequently, particularly in hospitals, this operation would be advised by the attending physician, but be performed by a less skilful hand, even by a nurse. Should there be an unusual excitement of the parts, such as frequently exists just preceding or following a menstrual period, it would of course be contra-indicated. The size of the tent is of great importance. We can readily conceive that a large tent, which is capable of being dilated to a great extent, should cause much distress at the moment of introduction, and produce long-continued and serious constitutional derangement. The operation itself may be improperly performed. If, instead of being carefully introduced, and the effects produced being watched, the dilator is carelessly, roughly, unfeelingly forced into the sensitive parts, suffering to a greater or less extent must inevitably be produced. This is self-evident. From a somewhat extensive employment of sponge-tents during the ten past

years for the treatment of dysmenorrhœa and sterility, I have formed conclusions different from those of the gentlemen of whom I have spoken. I have not unfrequently been disappointed in the result hoped for. The local obstruction has almost always been overcome by the long-continued, persevering employment of the dilator; but the opened canal does not always remove the condition thought to depend upon its closure—dysmenorrhœa and sterility still remain. I have, however, never seen the ill effects spoken of from the employment of tents. I cannot recall a single instance where more than a few hours' inconvenience has been produced; and in such cases the expanded sponge, when removed, has proved to have been originally much larger than it was supposed to be—showing that he who employs these tents should be acquainted with their uncompressed dimensions. My experience has taught me, then, that these contractions, however firm they may be, may almost invariably be overcome. The physician need not feel that the part is undilatable because the application of three, or five, or half a dozen tents does not overcome it; in a case occurring in my practice about a year since, *eighteen* sponge tents were introduced at intervals of two and three days before the canal was opened. My perseverance was rewarded by the perfect relief of the patient. I could point, were it necessary, to several cases where, after years of sterility, the sufferer has been relieved and borne children, and in the intervals in their childbearing have suffered no dysmenorrhœa. I have repeatedly seen cases of dysmenorrhœa remain relieved for years, and known no return. In a word, I have relied upon dilatation to relieve these affections, and whatever opinions may be advanced by others, so long as I feel we have a remedy from which we can confidently expect relief, and very rarely observe any injurious effects, I shall feel it my duty to employ it.

That cases do occur where the difficulty *cannot* be removed by dilatation, there can be no question; but "that incision is the only efficient and permanent remedy (in most cases) for dysmenorrhœa," I unhesitatingly deny.

Let us for a moment look at the method proposed. Those who advocate it should of course be satisfied that it has superior claims over the means now employed. I have thought the ill effects produced by *distension* might be occasioned by want of care; but those arising from incision *may* follow the operation of the most skilful surgeon who advises it, when the metrotome cuts through the walls of the *inner os*; and Dr. Barnes states, to employ his own language, "there is no doubt that the surgeon has actually cut through the substance of the uterus, and wounded the plexus of vessels outside; hence severe and dangerous hæmorrhage has ensued, and inflammation of the peri-uterine tissues." And even supposing the operation should be successfully performed, it is acknowledged by Dr. Routh, one of its advocates, "that such an amount of contraction frequently exists as to render it necessary to have a dilating substance worn

for a considerable length of time to prevent its perfect occlusion"; and Dr. Williams observes that "oftentimes no relief is afforded. He had seen a patient whose cervix uteri had been slit up on both sides, forming two large protruding lips, without affording any relief to the sufferer." Where the external os has been almost cartilaginous to the feel, I have overcome the obstruction with the hysterotome; but I have never attempted to divide the internal os. I cannot, however, recall the instance where it was required.

Fortunately for those who object to *unnecessarily experimenting* upon the os and cervix uteri, there were those at the meeting when Dr. Barnes read his paper, whose opinions coincide with ours upon this subject. Thus, Dr. Savage, Physician to the Samaritan Hospital for Women, who was in the habit of treating the severest cases of the character I have spoken of every week, assures us he never failed to remove the obstruction with the sponge-tent; and Dr. Graily Hewitt observed that where the cervix uteri was not hard and tense, he preferred to employ the tents as dilators. With these opinions Dr. Williams also coincided.

Enough has been said, I trust, to prove that the profession *generally* do not advocate the *indiscriminate incision* of the cervix uteri in cases of dysmenorrhœa; that the physician should yield his scientific opinion only when convinced of its error; that carefully-attested facts are of infinitely more value than the dogmatic teachings of the *highest authority*.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 167.]

DR. E. HALE published a work on the spotted fever as it appeared in Gardiner, Me., in the spring of 1814. His account of the symptoms is very full and interesting. He noticed the sudden and violent manner in which it frequently made its attack, and the great variety in the symptoms. "In the earlier part of the epidemic period the disease always commenced with severe pain in some part of the body, which, if it did not begin there, soon extended to the head and back; and in a few cases the pain increased, till in a short time it produced a delirium. Later in the season, however, pain was a less constant symptom." "Besides the varieties of pain which I have mentioned, there was in several cases, during the first day or two, acute pain in the chest, accompanied by a cough and expectoration of thick mucus, often streaked with blood. Early in the season this symptom was pretty common, but afterwards it seldom appeared. The cough and expectoration were considerably common in cases where there was no pain in the thorax." Nausea and vomiting, thirst, chilliness and a weak, rapid pulse are mentioned among the symptoms.

He mentions a second stage, in which vomiting was the principal

symptom, the pain being in many cases removed. There was often a feeling of lightness about the head; diaphoresis occurred, and the countenance was less expressive of anxiety. The vomiting was obstinate and required remedies to control it.

His third stage was the comatose, in which the patient gradually became unconscious, and after a while it was impossible to arouse him; his breathing became stertorous and he died.

He does not seem to have met with many cases in which there remained, after the acute stage, the state of chronic ill health so often seen elsewhere.

He mentions seven or eight cases in which the lungs appeared to be more or less affected, but as no *post-mortem* examinations were allowed, it is impossible to say how far the disease of the lungs extended. It does not seem generally to have been severe, and was in each case, except two, attended with symptoms referable to the head.

Dr. James Davis, of Columbia, S. C., published an account of the disease as it appeared in that section of the country during 1815 and '16. He states that the disease commenced as an epidemic of common cold in November, 1815, was at its height during the middle of January, and had nearly subsided by the second week of February. Not a single case of a formidable nature occurred without a chill; after the chill there was more or less fever and pain in the thorax. The pneumonic form, with the usual symptoms, was the most common and prevalent. Next in frequency was the form with a determination of the disease upon the brain and meninges, with violent pain in the head, suffused countenance, redness of the eyes and delirium.

"In another form, the disease fixed on the bloodvessels only, in the form of a violent fever; and in the third, but in very few instances, there was a local determination to the throat, producing cyanche pharyngea."*

Under date of February 22d, 1815, Dr. J. Comstock wrote a letter to Com. Perry, which was published in the *Medical Repository*, New Series, vol. iii. Though it does not give a detailed account of the symptoms, it touches upon many points of interest. He considered the disease which prevailed at that time in the Southern States a modification of that which had for nine years been epidemic in various parts of New England.

His reasons for believing the two diseases essentially the same are:—"1st. The unity of period in which the disease first invaded. 2d. The complaint being aggravated in both sections of the country by bloodletting. 3d. Its being in both places a disease of great malignancy and mortality, at a very unusual season of the year, viz., in the winter—the greatest number of deaths happening in cold

* *Medical Repository*, New Series, vol. iii.

weather and diminishing at the approach of summer, contrary to most fevers, and just the reverse of what happens in yellow fever, a disease of hot weather, and which is checked by cold, and which, I may add, requires a very opposite method of cure. 4th. The case of Gen. Washington (who, he thought, died of the disease) shows the tendency of the complaint *there* to affect the throat from the first in a greater degree than here; yet a slight sore throat is thought by some accurate observers amongst us to be the most certain sign of the disease, and I have had several cases in which it put on the form of malignant sore throat."

"It is now proper to observe that very little uniformity has taken place anywhere in this very eccentric disease." "From different symptoms attending it, it has in different places been called by other names, as *spotted fever*, *pneumonia typhoides*, *typhus fever*, *cold plague*, *malignant pleurisy*, *cholera morbus*, *bilious pleurisy*, *palsy*, *dysentery*, &c. &c. And it is an acknowledged fact that it has attacked in almost every shape and form that any human malady ever assumed, among which I may reckon toothache, common cold or catarrh, sore throat, numbness, pain in one of the fingers, a sensation like the stinging of a bee, sudden blindness, a failure of senses, loss of the use of the limbs, convulsions, coldness, paleness and shrinking of the features, and, on the contrary, with fulness of the face and redness, sometimes with and sometimes without heat, rheumatism, &c.

"Sometimes a vomiting of a thin black matter, resembling soot-water, or rather bilge-water, takes place early or late in the disease, and denotes such a tendency to gangrene as leads to an unfavorable prognosis." "With this, sometimes without it, are pitch-like dejections, and often those of a bottle-green color, sometimes foaming, as though in a state of active fermentation. I believe from hence that in some places it has been denominated a violent bilious fever."

"In two patients, the vomitus resembled blue dye; more frequently of a green or bottle-green, and once claret. In other cases, nothing unusual in any of the discharges, and these were cases which yielded most readily to the stimulant treatment—viz., to bark, wine, opium and alcohol. Some other cases required stimulants for the first day or two, because the debility was extreme, and afterwards emetics and cathartics to cleanse the first passages."

"Morbid matter was not always brought up by vomiting, but in the worst cases by eructation or belching."

"There was a tendency to intestinal hæmorrhages, especially in 1810."

Dark, bloody and frothy matter, and sometimes small particles of the lungs, were coughed up. The fever was sometimes converted into complete mental derangement, upon cessation of which the fever returned."

It "seems difficult to find anything specifically diagnostic to distinguish it from other distemperatures. The pulse, however, is the

guide." "It may not always be quicker than it is in health, which is the case perhaps in all other fevers, and yet it is sometimes extremely quick, even to 130 or 140 in a minute. It may not at first seem much weaker upon a slight examination than the pulse of a person who is able to be about, although it is often very much so. But one thing in all cases is certain—viz., that it is easily *compressible* and always void of that *full, high, hard, resisting* beat, which is the plainest indication of inflammatory disease. The feeling of the flesh also has often something peculiar. It has a soft, flabby feel, somewhat like velvet; and if there is much heat, it is of a penetrating, prickly kind, instead of giving a burning sensation, like the skin of inflammation. The softness of the flesh has been noticed in dissections, the muscular parts having lost their tone, like meat that had been frozen and suddenly thawed. It is from hence that there is a tendency to those effusions which constitute danger and cause death, and which seems to be in that particular part, as we suppose, in which the loss of energy is greatest. If this be the brain, the consequence of the effusion may be apoplexy, palsy or convulsions; if in the thorax, symptoms like pleurisy and peripneumonia; if under the skin, spots; if in the throat, swelling, even to strangulation, or a sudden sphacelation; if in the stomach, it may be so abundant as to waste the body with marasmus, accompanied with puking or diarrhœa."

"That particular form of the disease which affects the lungs may have its origin from effusion into that viscus, with cough and bloody expectoration, and perhaps some peculiar symptoms which may have given rise to the appellation of *lung fever*."*

In 1815, Dr. Joseph A. Gallup published a work on the "Epidemic Diseases in the State of Vermont." He devotes a portion of this to spotted fever. His account of the symptoms agrees in most respects with what has been already given. "The eyes are generally dull and heavy, inclining to shed tears without being conscious of it." "The lungs are pressed with blood, but seldom any cough. Respiration is often laborious, and patient inclines to be quick of speech." "The region of the heart is sometimes the principal seat of the disease, and not so violent in the head." "The eruption which has given name to this disease, is not a constant attendant." "It was very common for relapses to occur, or for the disease to be repeated, after the patient had returned to his ordinary employment." He does not mention the pneumonic form, though his next article is devoted to peripneumony, in which he says:—"The disease of 1811 and 1812, called petechial fever, and the present epidemic, seem to have many things in common." "The chief difference seems to consist in the locality of the principal affection."

The *post-mortem* appearances were those so often observed in other

* Medical Repository, New Series, vol. iii.

places where the head was affected—congestion and exudation. “The thorax exhibits similar traits of membranous inflammation. The heart is most commonly the seat of its greatest violence, when the seat is in the thorax; the small bloodvessels seem beautifully injected.” “The outer coat is frequently covered with extravasated lymph of different degrees of consistence or firmness.” The pleura was also at times inflamed.

In considering these various accounts of the epidemics of 1812–16, we see that in many of them the symptoms differ from what was seen before and from what we witness at the present time. The question arises, is it the same disease in both cases? There is not only a difference in the particular organ affected, but in many cases the grade of action is different. In some places the fever ran high, with a full, hard pulse, and depletion was useful; in others, the pulse was small and weak, or if full was easily compressed and soft, and depletion was rather injurious. In some places the head was not at all affected; in others, the lungs were entirely free. Were they, then, the same disease?

Dr. Hunting Sherrill, in an address before the Dutchess County Medical Society, delivered in November, 1819, speaking of the diseases which had prevailed in the County during the previous ten years, says:—“We met with cases putting on nearly the character of usual phlegmasial fever; and we saw it receding from that, through the varied grades of excitement, to the typhoid state of disease. It may now readily appear why the disease was called and described by the different names of peripneumonia, peripneumonia notha, peripneumonia typhoides, bilious pleurisy, bilious fever, typhus fever, spotted fever, and many others, either of which was probably more correct than the delusive ones of *typhus fever* or *spotted fever*.” And so it was elsewhere, the disease took varied forms and degrees of action; in one person being a frank open fever with quick, hard pulse; in another being essentially asthenic; and both occurring at the same time and in the same place. The affection of different organs was also noticed at the same time, in the same place; even in the same individual both forms were seen. Dr. Gallup says, “Neither of the diseases was strictly confined to one of these parts or the other (head or lungs). When most in the head, the diseased affection would be slightly traced in the thorax; and when in the thorax, some could be traced in the membranes of the head.”*

It may be worthy of notice, that when the lungs were affected the fever was more severe and had more of a sthenic character, than when the brain was the principal seat of disease.

Both forms occurred during the same years and during the same season, being most frequently seen in the winter; both occurred in the same immediate vicinity; both were acknowledged to depend on

* Epidemics of Vermont.

the same causes—atmospheric changes, assisted by fatigue, cold, wet and other debilitating influences; both required nearly the same treatment, allowance being made for the greater debility in one than in the other; symptoms peculiar to each occurred in the same individual; the symptoms which were not strictly local were similar in each; both were marked by the peculiar erratic character of their symptoms; they were recognized and spoken of by many able practitioners, who saw and treated cases of both, as only different forms of the same disease. Hence it may be safely concluded that the two forms we have been considering are only different manifestations of the same complaint.

It will not be necessary to consider so minutely the symptoms observed in succeeding epidemics, as they are not materially different from what has already been recorded.

In 1816 and '17, the disease we are considering appeared in various parts of South Carolina, in Salem County early in 1816, and in Claremont during the winter of 1816-17; from 1818 to 1822 it was seen in Mecklenburg, Lunenburg, and Brunswick, Va.; in some parts of the Western States during the spring of 1819, and also in North Carolina and the mountainous parts of Virginia; in 1821 in Franklin County, Penn.; in 1823 it was recognized at Saco, Me., Berlin, Conn., in the Shenandoah Valley, Va., and possibly at Marietta, O., though the account of that epidemic is not very satisfactory. In 1823, '24 and '25, it was seen in the vicinity of Middletown, Conn., also in some parts of that State in 1826, and likewise at New Orleans and Fort Adams; and in 1827 in Trumbull County, O. In 1832, sporadic cases occurred at New London, Conn., which in many respects resembled this disease; there was extreme exhaustion and great sinking at the epigastrium; a chronic state of debility and nervous exhaustion frequently remained after the attack. There is no mention made of this disease from that date, till in 1845-46 an epidemic prevailed in Clark County, Ill., called "black tongue," thought by Dr. McCoy to be cerebro-spinal arachnitis on account of the post-mortem appearances. In the early part of 1847 it was seen in Mississippi, Tennessee, Missouri and Arkansas, and "resembled a modified pneumonia;" in the winter of 1847-48 at Washington, D. C. Dr. Ames has given a very interesting account of it, as it appeared in Montgomery, Ala., during the winter and spring of 1848. He saw cases which were attended with inflammation of the fauces; others with pneumonia; and two patients had at the same time roseola, which was then prevalent. Dr. Sargent read a paper before the Massachusetts Medical Society on this disease as it manifested itself in Millbury and Sutton during 1849; it was also noticed, the same year, at Mecklenburg, N. Y. Again, a few cases were seen in New Orleans during the last days of January, 1850; in central and western New York during 1857, as recorded in the Transactions of the New York State Medical Society, for 1858. In October, 1859,

there commenced an epidemic at Castle Craig in Virginia, which continued nearly a year. Dr. R. T. Lemmon, who gives a report in regard to it, considered it to be dengue, but the severity of the disease was much greater than is usual in that complaint, and the symptoms seem to more nearly resemble cerebro-spinal meningitis.

One symptom is more fully described by Dr. Miner than by any other American writer. In a little work on the Spotted Fever of New England in 1825, he speaks of the variations in the pulse, finding it usually less rapid than in health; in less than twelve hours he found it to vary from 40 to 130. He describes the symptoms usually seen, and speaks more fully than most of the peculiar sensation in the region of the stomach. "A very prominent symptom which occurred in some degree in almost every instance even in mild cases, and probably without exception in all the severe, and happened in every stage, sometimes constituting the first access of the disease, consisted of paroxysms of subsidentia or a death-like sinking sensation in the epigastrium, sometimes very distressing, attended with coolness or numbness of the skin, and lividness of the extremities." Subsidentia is also mentioned by Dr. Keit, in an account of the epidemic in Trumbull County, O., about 1827. *

The earliest records of the late epidemic, which I have been able to find, are during the winter of 1861-62, when it was seen in the army of the Potomac, and in Livingston County, Ind. In the fall of 1862, it appeared among the negroes who were taken to Memphis, Tenn., by the Union Army; and one or two cases were met with among the soldiers in the vicinity of Newbern, N. C.; during the winter of 1862-63, and spring of '63, it appeared in La Grange County, and other portions of northern Indiana, at Newbern, N. C., during January, February and March; and during those months and also April, at Newport, R. I., among the midshipmen at the Naval Academy; in February and March it was seen at Philadelphia, and during the latter part of the year at Cambridge, O. During the two successive winters of 1862-63 and 1863-64 it was epidemic in Morgan County, Ill.

The year in which I have found the largest number of accounts of this epidemic is 1864. During the winter of 1863-64 the negroes at Memphis were again visited by it, and during the same winter and succeeding spring, Darwin in the southern part of Clark County, and York in the northern part of Crawford County, Ill.; in the north-western part of Pennsylvania and parts of New Jersey it was noticed during this year, and also in 1862 and in 1863: only a few cases occurred around New York. During January it was in Brattleboro', Vt., during January and February in Philadelphia and at Benton Barracks, near St. Louis, Mo. During March it was seen in Brandon and St. Albans, Vt., and Louisville, Ky., and during Jan-

* Medical Record, vol. xiv.

uary. April and March, cases were seen in Boston, Mass.; during May at Chicago. at Leland and in Williamson County, Ill.; during the last part of July three cases occurred at the Stanton General Hospital, Washington, D. C. In October, Mechanicsburg was visited by it, and in November, Marshall, Ill., and during the latter part of the year, St. Paul's, Ind. During the winter of 1864-65, a few cases were seen at the City Hospital, Boston; in January, 1865, at Greenwich, and in April at Palmer, Mass.; in the latter month at Kewana, Fulton County, Ind., and early in the year at Palestine, near Indianapolis, Ind.; in May at Nittany Hall, Penn. From September 1864, to May 1865, this disease appeared among the troops on Gallop's Island, Boston Harbor, Mass.

During February, 1866, Dr. D. W. Cheever, of Boston, had charge of a case of this disease.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JUNE 11th.—*Brachial Artery ligated for a Stab; Mortification; Secondary Hemorrhage, and, finally, Amputation.*—Dr. CHEEVER reported the case.

A man, aged 33 years, was brought to the City Hospital, having been stabbed in the arm just above the elbow. The knife had gone completely through the limb, severing the median nerve and brachial artery. Before coming to the Hospital, the artery had been tied about two inches above the wound. Sensation was diminished throughout the portion of the limb supplied by the median nerve. The temperature remained normal till the fourth day, when sloughing began in the wound from the operation, and the arm was decidedly colder than the other. The sloughing also attacked the wound from the stab, and gradually increased. On the seventh, eighth and ninth days, there were several hæmorrhages from the two wounds, mostly from the upper one. After consultation, an exploratory incision was made, which disclosed a large gangrenous cavity containing a clot of considerable size, the soft parts in the neighborhood being infiltrated with pus. The arm was immediately amputated. On examination, the brachial artery was found partially cut across in the original stabbed wound, both ends being open. The median nerve was divided completely at a corresponding point. The brachial was occluded at the seat of its ligature, but no clot was found.

JUNE 11th.—*Unsuspected Fracture of the Femur into the Condyles.*—Dr. CHEEVER reported the case.

A boy, 17 years old, was brought to the City Hospital, having been run against by a wagon and his right knee injured, while riding horse-back, seven days before. For three days after the accident, he walked about upon the injured leg, but since then had been obliged to keep

his bed. There was a diffused redness and swelling about the knee, extending up the thigh, and a phlegmonous swelling in the popliteal space. He was made as comfortable as possible, and for several days there was some improvement. On the fifth day there were symptoms of general prostration, and there was a feeling in the thigh as if pus were forming. A stimulating diet was ordered, and poultices to the limb. The next day, an incision was made through the integuments to the fascia, then through the muscles below, and a large quantity of dark, oily and offensive pus was discharged. The probe detected a small place where the femur was denuded. For a fortnight after this he continued in a typhoidal condition, gradually growing worse; the knee became much more swollen and the discharge from the incision very offensive. The limb was carefully examined, while the patient was etherized, and the knee-joint found to be much swollen by an effusion, while dead bone could be felt all about the lower part of the femur. On consultation, it was decided that his only chance for life was in amputation, and it was accordingly done as soon as practicable.

On examination of the limb after its removal, the femur was found to be fractured into the condyles in the cancellous structure, and extensively diseased all around the shaft.

JUNE 25th.—*Cysticercus tenuicollis in the Human Body.*—Dr. HODGES reported the case.

A farmer, æt. 49, requested his advice for a superficial tumor, as large as a pullet's egg, situated on the axillary border of the right pectoralis muscle. It was discovered two months before, since which time it had gradually enlarged, and, within two weeks, grown tender and red. It was obviously, in part at least, a collection of pus, though its mobility, prominent and lobulated shape, and the density of the surrounding wall of lymph, were not features of an ordinary abscess. On incising it, a quantity of healthy pus was projected to a distance, and gentle compression expelled from its interior a thin-walled, translucent cyst, as large as a robin's egg, partially distended by its fluid contents, the size and appearances of which were suggestive of an echinococcus. On further examination, no other tumor or evidence of subcutaneous parasites were found. The patient stated that he had not been out of health, although he had noticed for six months a gradual loss of strength and flesh. His appetite had been inordinate, but his digestion was unimpaired. He had not been in the army, or eaten pork otherwise than is the custom in the country.

Dr. ELLIS having examined the specimen and determined it to be a cysticercus and not an echinococcus, the patient was inquired of as to having noticed any appearances in his stools which might be due to tapeworm. Although nothing of the sort had been observed, he was subjected to active purgation and the administration of kousso, but without result. It would seem, therefore, that the co-existence of cysticercus and tapeworm, occasionally noticed—patients infecting themselves and being the origin of their own cysticerci—was wanting in the present case. The patient's eyes, which presented some abnormal appearances, were examined by Dr. H. Derby. No other changes were found than those belonging to advancing years.

The apparently solitary development of this parasite in the case reported, and the contrast in size between it and specimens of *C. cellulosa*, shown by the reporter to the Society in 1856, the largest of which

did not exceed the dimensions of a coffee-bean, find an explanation, perhaps, in the result of an examination, given below, made by Prof. J. Wyman, who considers the present as probably an instance of *C. tenuicollis*, the cystic representative of *Tænia marginata*, of which comparatively little is known.

Prof. J. WYMAN had examined the *Cysticercus*, and found it provided with four cups, or sucking discs, as in the true *Tæniæ*. The hooks had been partly displaced, and some of them lost; nine of them belonging to one now remained in their normal position, and adding a proportional number to the rest of the circle, the whole series would have contained sixteen. Only one hook, of a smaller size, remained to represent the second row. The bladder was about three fourths of an inch in length, and of a nearly spherical form. In size and shape it resembled *Cysticercus tenuicollis*; also in the number of the hooks. The hooks were, however, smaller than in this species, and resembled those of *C. cellulosæ*; but in this last the number of hooks in each row is twenty-two to twenty-four, instead of sixteen. The locality in which Dr. Hodges's specimen was found corresponds with that of *C. cellulosæ*, *C. tenuicollis* being almost invariably found beneath the serous membranes, especially of the abdomen. The specimen in question does not agree with the cysticercus of either of the species commonly infesting the human body, but probably belongs to some species normally infesting some animal, and has "strayed."

Dr. Wyman also stated that he had found a *Cysticercus tenuicollis* on a butcher's block in Cambridge, which the butcher assured him had just been taken from the inner surface of a loin of veal.

JUNE 25th.—*Death from Suffocation in the Vault of a Privy.*—Dr. CHEEVER reported the case.

A man, aged 24 years, was engaged in emptying a vault, when one of his companions fell in, and in trying to rescue him he also was precipitated into it, there being about six feet of contents remaining in the vault at the time. Four in all were overcome by the poisonous gas as they descended to aid their unfortunate friends. Some time elapsed—very near an hour—before they were finally drawn out. As soon as taken out they were washed, wrapped in blankets, and stimulated largely with carbonate of ammonia.

The patient and his brother were brought to the City Hospital; upon arrival he was semi-conscious, tossing about and uttering a moan with each expiration. The face was livid, the lips and ears were quite blue, the skin was cold and mottled with purpuric spots, the pulse was very rapid and irregular. Respiration was rapid and moaning.

Artificial heat was at once applied to different parts of the body and the stimulation by carbonate of ammonia continued, and brandy was given by the rectum.

Soon he seemed to revive a little, the pulse improved; he raised his head and tried to vomit, and even uttered one or two articulate sounds: but this improvement was only transitory, for soon he expectorated bloody mucus, the face became more livid, and the respiration and pulse were weaker. This change was very sudden, and he grew rapidly worse and died in about an hour after arrival at the hospital. The electric battery and artificial respiration were used without success.

Twelve hours after death an autopsy was made. A great deal of

bloody serum had oozed from the nose and mouth. The face and upper part of the body was of a dark purple color: the rigor mortis was *very* great. The intestines were very much distended with gas, and the vessels upon their surface were injected and could be seen running in every direction. The stomach contained a small quantity of what resembled the liquid contents of a privy vault; its smell was particularly disagreeable. It should have been mentioned that just after death a fluid like this ran from the mouth of the patient.

The lungs were congested, the left more than the right, but they were every where crepitant. The bronchi were filled with bloody mucus. The right cavities of the heart contained blood, and the vena cava ascendens was immensely distended with blood which was very dark and fluid. The left side of the heart was empty. The head was not opened.

JULY 9th.—*Abdominal Cancer; supposed by the Patient to be Pregnancy in third to fourth Month; accompanied by Apoplexy of the Medulla Oblongata; Death in twenty-four Hours after Apoplectic Attack.*—Dr. CORRING reported the case.

Mrs. R., aged 40, mother of two children; last born five years ago. Thinking herself again pregnant, sought medical advice, middle of June last, for continued nausea and vomiting. Had passed the last three catamenial periods without the usual discharge.

Obtaining only partial relief, she again sent for me, Monday, July 2d. As her bowels had not been satisfactorily open for some days, a cathartic was directed as a preliminary to further treatment.

Tuesday, July 3d.—Cathartic operated several times, copiously; vomiting continues, distressing, but not quite so often. No pain anywhere; never has had any. Complains of great weakness, which is referred to frequent going up and down stairs and to extreme heat of weather. Has been about the chambers, but not down stairs for two days. Has been up this morning, but is now on the bed. Pulse 80, with strong impulse; intermits every seventh beat for a number of times, and then becomes regular for fifty or sixty beats.

On examining abdomen, found tumor of about the size of fourth to fifth month of pregnancy, but much to right side of median line: quite hard, irregular, and with unusual crepitations on pressure, as of the bursting of air-bubbles; not tender or painful. Has not had any pain in defecation or micturition. Urine, just passed, about a pint and a half, natural and clear, showing no change on being heated to boiling point.

After as comfortable a day as usual—about 6 o'clock, P.M.—suddenly, without the least warning, she fell into an apoplectic condition, becoming at once unconscious, and, apparently, completely insensible. The eyes were rolled upward; the pupils largely dilated. The pulse was slow, not over 75 to 80 a minute. The extremities became rapidly cold, and a cold sweat covered the body. The respirations were rapid, over fifty a minute: except when interrupted by a deep inspiration, which, more than once, seemed convulsively terminating in the last expiration. She continued in this way, except that on the following morning the eyes both turned to the right, and the coldness of the skin abated; and, again, in the afternoon, the position of the eyes became natural and the pupils contracted; the pulse rose to 130, and the skin became very hot.

Died, without struggle, at 6, P.M., twenty-four hours after attack.

Autopsy, twenty hours after death, by Dr. SWAN. The lower portion of the omentum was found adherent in several places to the abdominal walls, and a diseased mass in the true pelvis. Several folds of the small intestine were also attached to the mass by old-looking, but not very firm fibrinous exudations. The parts in this vicinity had a slaty hue, and were blackish from the presence of minute particles of pigmentary matter, like finely-powdered charcoal. The disease consisted in an aggregation of roundish tumors of different sizes, the largest of which, in the right inguinal region, was two or three inches in its longest diameter, somewhat kidney-shaped, and the most prominent object to palpation before death. The growths more than filled the normal spaces of the true pelvis, and were so closely packed that section presented a continuous surface. The rectum was compressed, though healthy; numerous scybala were found in the colon. The uterus could be dissected from the mass without injury; the internal surface of the bladder was entirely healthy, and neither of the named organs gave evidence that the disease proceeded from them. It is inferred by exclusion that, as the ovaries could not be found, they were the original seat of the morbid action. The pancreas was replaced by a series of similar growths, more or less massed together.

The disease was encephaloid in general characters. Section showed in parts a mottled appearance. There was a varying proportion of fibrous tissue, the pancreatic tumors having more of this element than those of the pelvis. The latter were in many places in a condition of softened granular degeneration.

Other organs not remarkable.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 27, 1866.

EXTRA-PHARMACOPŒIAL PREPARATIONS.

The Pharmacopœia of the United States contains, at present, 305 articles of materia medica on its primary list, and 75 considered of secondary importance. The number of its officinal preparations is 497. At the last revision, which was published three years ago, by a committee selected from the most eminent physicians and pharmacutists in the country, 55 medicines and 111 preparations were introduced for the first time. With this amount of material at command, does it seem possible that the physician can be at a loss for remedial agents in the treatment of disease? A glance at the returns of the Bureau of Internal Revenue would supply an answer to this question which, we fear, would astonish the advocates of rational medicine. The immense sums of money which have been acquired by the proprietors of patent medicines in this country and the great number and general use of these secret remedies are well-known facts. They are an index of that ignorance and credulousness on the part of the people which we as a profession so much deplore; but it is not to this class of remedies that we now allude. Within a comparatively few years there has grown up, to an alarming extent, a business which owes its success, in part at least, to these same qualities, modified and

otherwise termed, 'tis true, in ourselves. With us they are manifested by an irrational confidence in new remedies and an insufficient knowledge of the real physiological action of drugs, which lead us to seek in new combinations results which are equally to be found in the old or which are impossible. This weakness on our part has opened a field for pseudo-professional enterprise, which bids fair almost to rival the success of those who cater to the corresponding failings of the people.

The wise compilers of our national Pharmacopœia have given us, besides the standard articles of the *Materia Medica*, nearly five hundred medicines which can be easily prepared according to their directions by every competent dispensing druggist in the country. It is a duty we owe to therapeutics, to honorable pharmacy and to professional dignity, to adhere strictly to these official remedies in our prescriptions so far as possible. How far do we observe this obligation? In every large apothecary shop we venture to say there will be found an array of non-official preparations, equal in number to those authorized by the Pharmacopœia, and but slightly outnumbered by the secret and patent remedies offered for sale. The mail scatters broadcast over the country the announcements of manufacturing houses, with price-lists of new and special preparations and gratuitous information as to their therapeutical uses. Travelling agents insist upon leaving similar specimens at your office, with accompanying testimonials from physicians, and request the use of your name also in their favor. Illustrated catalogues in the finest style of typography are published for general distribution, and the last phase of the trade is the publication of a journal for the price of fifty cents a year, under a high-sounding title, in which, together with excerpts of a scientific character relating to chemistry, pharmacy and therapeutics, and presumptuous opinions on the physiological action of remedies from non-professional sources, the proprietors do not hesitate to state that they "have no inclination to disguise the fact that one object in establishing this journal is to call attention to our chemical and pharmaceutical products." It is not long since we read, in the report of the board of charities of a church in this city, a puff extraordinary of the preparations of another proprietor who had exhibited particular generosity in the distribution of his remedies among the poor of the parish. We believe no one has yet published an almanac, but we would suggest it for consideration.

Now all this is the result of our own indiscretion, for without the assistance of our profession not one of these establishments could exist a day. We do not mean to say that no physician should make use of a preparation which is not contained in the Pharmacopœia, for new remedies are often proposed which deserve trial and may be found worthy of a place in its pages. There are, moreover, trustworthy and competent men engaged in the wholesale manufacture of medicinal preparations, whose chemical and official products are justly esteemed for superior excellence. It is the sale and use of private remedies and novel combinations of endless variety which can possess no virtue not to be found in similar official preparations, that we object to. Not only are we contributing to confusion in therapeutics and medical literature, but largely also to the present uncertainty in our knowledge of the effect of remedies by such patronage. Is Dr. X., who allows his name to be used as a voucher for the efficacy of these preparations,

also sufficiently a chemist to be able to certify, as he indirectly does, to the honesty of the manufacturer? We have known several of these much prized extracts, syrups, &c., to be found wanting on analysis in the very principles to which they owe their popularity. We have even known drugs, stated by such parties to have been made according to official directions, to contain less than one-half the proper amount of their only active ingredient.

It is in this connection that we would refer to a very able paper on regularity and unity in prescribing medicines, by Dr. Hibberd, of Indiana, in the September number of the Cincinnati Journal of Medicine. It contains an allusion to a well-known house in this city, which will recall to mind a controversy which was carried on in this Journal a few years since.

"There is a fashion in this affair; and many of us, I opine, have no more substantial foundation for prescribing these preparations than that it is, for the time, professionally fashionable to do so.

"One year we run upon 'Compound Extract of Stillingia;' another upon 'Chemical Food;' a third upon the 'Hypophosphites;' a fourth upon 'Iron and Bark;' and just now an active effort is being made to introduce into this city another nostrum called 'Fluid Extract of Sarsaparilla with Iodide of Lime.' This last article may be an excellent remedial agent, but it is presented surrounded by the declaration that large numbers of the most eminent physicians have testified to its worth; by the promise that it is admirably adapted to the use of children in chronic diseases, and by all those special pleadings that nostrum makers know so well how to apply to cajole the public into buying their wares.

"This Iodide of Lime is one of the products of the laboratory of J. R. Nichols & Co., who have a very specious and Oily Gammon way of presenting their preparations to the profession. For some years this house has been making and vending an 'Elixir of Bark and Iron,' the great merit of which they claimed, was, that it contained the protoxide of iron, whereas it contains no such ingredient. Of this fact I have long been satisfied, but to fix the affair with chemical certainty, Dr. Weist, at my request, during the present week, examined a specimen that I presented him, and neither by the test paraded by the proprietors, nor by other tests, could any protoxide of iron be detected.*

"Within the last forty-eight hours, while I was preparing this paper, the travelling agent of this same house laid upon my table a circular, one side of which is devoted to puffing the iodide of lime, and the other side is taken up with an essay on 'Opium and its Alkaloids,' leading to the announcement that the Tinctura Opii Deodorata of the Pharmacopœia is an excellent preparation, but that its title is a misnomer, and that they prepare the article in a superior manner, and propose to vend it under the name of 'Infusum Opii Deodorata.' Such brazen impudence is past being tolerable, and ought to rule the house of its perpetrators from the catalogue of reputable pharmacutists, and prevent any of their preparations from being found in any respectable drug store."

* Dr. Hibberd has written a letter, received since his paper was presented, wherein he states that Dr. Weist has carefully examined a number of specimens of the preparation, and finds them to contain a proto-salt and a sesqui-salt of iron in varying quantities, the quantity of the one or the other salt probably depending upon the age and exposure of the particular specimen examined.

THE following letter has been handed to us for publication :—

{ BERKSHIRE MEDICAL COLLEGE,
Pittsfield, Mass., Aug. 30, 1866.

To the Directors of the New England Hospital for Women :—

LADIES.—The letter of your Secretary, dated Aug. 13th, and communicating to me certain action lately taken by yourselves, was duly received. I have delayed replying to it until the present moment, because I have thought the matter of such importance as to require mature reflection, and that I might act, whatever my decision, only deliberately and upon conviction.

By the vote, general though its terms, of your Board, the attending surgeon is directed, in certain cases of difficulty or danger, to submit his patients to examination by the attending and resident physicians, and, in accordance with their judgment of its necessity, to one or more of the consulting physicians or surgeons, whose decision shall in such event be final.

Compliance with your vote would of course relieve me of all responsibility in reference to the treatment of my patients, a responsibility which I could not in justice to them relinquish. It is not, so far as I am aware, the custom among hospital attendants, indeed it would be highly improper, for the decision of purely surgical questions to be submitted to the medical members of the staff. The decision ought not thus to be shifted, even in case it were proposed to do so by the surgeon himself; it surely ought not, as you would now have it, against his desire.

Moreover, the consulting staff, and this I believe to be the case at all hospitals, is attached to an institution not for the purpose of directing the practice of the attending physicians and surgeons, or of vetoing their practice, but to advise and suggest in cases where such assistance may seem required, and of this necessity the attendants themselves are alone to judge. It is not the physician's place to judge as to the necessity in surgical cases, nor the surgeon's to decide upon it in those that are medical. Consultations among medical men are not matters of compulsion; they are made upon the request of the patient or at the desire of the attendant. This is a point with whose merits I am somewhat familiar, having had occasion to discuss it when proposing to the profession the appointment of consulting physicians to asylums for the insane. It was decided upon vote, by the American Medical Association, representing as this does all the hospitals in the country, that the consulting staff are to be called upon only at the discretion of the attendant. So far as my own practice is concerned, if I have a doubt or require advice, I should submit the course I proposed to pursue to the consideration of a colleague, certainly not otherwise. I have no fear that the reputation of the hospital has suffered from any action of mine in this respect.

By your decision, a different course must hereafter be pursued. Either trifling cases, for which the hospital is not needed, can alone be admitted, or severer ones, coming for a certain definite purpose, must have it denied to them. Conformity to either of these alternatives would be alike incompatible with my own self respect, my duty to my patients, and the best interests of the hospital. I am therefore compelled to resign my connection with it. I have more than once, previously to the present time, felt that I was occupying a false and undignified position, as when you voted that no male students should be allowed the advantages I have felt it my duty to them to offer, and the duty of the hospital, as a charity, to extend to the profession at large, and when you ordered that in future no patients shall be admitted to the hospital save those paying their full expenses. By such restrictions the hospital has in reality lost its essential and only claim upon the sympathies of the community, and has been degraded below the level of an ordinary boarding house, where patients can at least obtain such attendance as they themselves may elect.

Having received my resignation, you may consider as gratuitous the remarks I am now to make, and may wish that they had been withheld. The connection that has existed between us has, however, been a public one. It has been severed by your own action, and the changed relation will become a matter of public comment. It is not improper, therefore, for me to say one word more.

Before accepting your appointment, I had for many years felt the need of a public hospital for invalid women; a need that still exists, for with all your large endowments and the promises that have been made to the community, your hospital is not in the proper sense a charity. It was chiefly the expectation that it would be made such that induced me, some three years ago, by identifying myself with it, to act contrary to the advice of many of my most respected professional friends, such gentlemen, for instance, as Drs. James Jackson, Jacob Bigelow, J. Mason Warren, and others of similar standing. As a mere aid to establish any individual reputations, or a means of compelling the success of a measure that was obnoxious to physicians generally, I should

not have given the hospital my countenance. That I have since discovered it to possess both these features, I cannot deny. Having connected myself with it, I was willing that incidentally, and only incidentally to the great end of affording a charity hospital for the diseases of women, the experiment of testing the ability of women to become fitted to practise as general physicians should continue to be tried. My position upon this question, as you may know, has been one of perfectly good faith. I have withstood alike entreaties, overtures, threats, from those who disapproved of my course; for, on the one hand, I have desired to do what little I personally could towards the real enfranchisement of woman, provided this were a means to such end; and, on the other, I have thought that by elevating the few women who might be better educated than the mass of those of their sex assuming medical honors and responsibilities and masculine appellations, our profession might be purged, to a certain extent at least, of many claimants utterly unfitted for its membership. Under these circumstances, I shall probably be allowed, both by those endorsing and those regretting my late position, to have had good opportunities for judging as to these questions.

Since receiving your communication, I have been better able than before to dispassionately consider and weigh the whole matter. You yourselves have freed me from the bonds that otherwise might have restrained me, at least from expressing, if not from forming, an unbiassed opinion. It is sufficient for me to say, that despite certain exceptional cases upon which so much stress has been laid, exceptions in every sense of the word, I think that the experiment has been a failure; and that were there no other reason than for a physiological one, perfectly patent, though its importance has been so much lost sight of, women can never, as a class, become so competent, safe and reliable medical practitioners as men, no matter what their zeal or opportunities for pupilage.

For certain of the professional ladies whom I have met, I have personally the highest respect and esteem. Miss Zakrzewska, the beauty and purity of whose life as already published to the world, I have long seen verified, may well challenge comparison in practice with a certain percentage of my own sex; Miss Tyng, now for two years my assistant in private practice, has such natural tastes and inclinations as fit her, more than I should have supposed any woman could have become fitted, for the anxieties, the nervous strain and shocks of the practice of surgery; and there are others not now officially connected with the hospital, whose names I would mention in terms of similar commendation. Such are however, at the best, but very exceptional cases, and I am driven back to my old belief, the same that is entertained by the mass of mankind, that in claiming this especial work of medicine, women have mistaken their calling; a belief that, contrary to assumptions that have been made by certain interested parties, I have found to be generally held by ladies of true refinement and delicacy, and by the majority of female patients, no matter what their station in life.

I make these statements deliberately, for they are of public interest. I make them with regret, for to some they will give pain. You yourselves have placed me where I could view the matter in a truer light than might otherwise have been possible. Many things have hitherto conspired to warp my judgment; the opposition and violent denunciations of former associates, the knowledge that to my own personal exertions has been owing much of your pecuniary success, and to my own professional reputation, whatever this may be, very many of the applicants for medical and surgical aid, and above all, my habit of never abandoning an experiment until it has been tried to my full satisfaction. The attainment of that point you have now assisted me in recognizing; and in yielding to the irresistible logic of facts, I thank you all for the many marks of confidence I have up to this moment received at your hands, and trust that you may find for my post a successor with as much sincere desire to render good service to his profession and to the suffering poor, as I think I may claim to have brought to it.

Yours very respectfully,

HORATIO ROBINSON STOREY.

DEATHS IN BOSTON for the week ending Saturday noon, Sept. 22d, 82. Males, 39—Females, 43. Accident, 1—apoplexy, 2—congestion of the brain, 1—disease of the brain, 1—bronchitis, 1—carbuncle, 1—cholera, 3—cholera infantum, 9—cholera morbus, 1—consumption, 10—convulsions, 1—debility, 1—diarrhoea, 4—dropsy, 1—dropsy of the brain, 1—dysentery, 9—exposure, 2—typhoid fever, 2—disease of the heart, 3—intemperance, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 7—necrosis, 1—old age, 1—paralysis, 1—puerperal disease, 1—smallpox, 2—teething, 2—ulcers, 2—unknown, 4—whooping cough, 3.

Under 5 years of age, 33—between 5 and 20 years, 6—between 20 and 40 years, 15—between 40 and 60 years, 6—above 60 years, 17. Born in the United States, 59—Ireland, 20—other places, 3.

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THURSDAY, OCTOBER 4, 1866.

No. 10.

SURGICAL CASES, FROM THE RECORDS OF THE CITY HOSPITAL,
BOSTON.

[Reported for the Boston Medical and Surgical Journal by DAVID W. CHEEVER, M.D.,
one of the Visiting Surgeons.]

*Eighth Paper.**—ON INJURIES OF THE HEAD.

Abstract of a Clinical Lecture delivered in June, 1866.

THE records furnish us with twenty-four cases of this form of injury, as follows:—scalp-wounds, 6; concussion, 10; diffused contusion, 1; fractures of the vault, 3; fractures of the base, 4. Total, 24.

Glancing very briefly at the first two, or milder classes, we shall devote our attention chiefly to the fractures of the skull. Before proceeding to do so, it may not be improper to recur for a moment to the anatomy of the head.

Proceeding from without inwards, we have the following structures: A very vascular skin, or scalp, connected by loose cellular tissue to the broad and thin aponeurosis of the *occipito-frontalis* muscle; this aponeurosis being rather closely connected to the periosteum. Beneath these, the tough outer table of the skull, the vascular diploë, and the brittle inner table. Next, the dura mater, a fibro-serous membrane, discharging the function both of an internal periosteum and of a firm wrapping and tensor of the brain. Within the cavity of the encephalon, a smooth inner wall about the vault of the cranium, and a very rough and broken surface at the base.

The recuperative power of the scalp is only equalled by the facility it affords to pus to burrow beneath it, in all directions. The tighter and firmer investment of the aponeurosis brings any pus *beneath* this fascia into close and destructive neighborhood with the periosteum and bone. The close connection between the pericranium and the dura mater (or internal pericranium) often leads to the rapid transmission of disease of the bone beneath the former to the latter, and thence to the brain. The venous channels of the diploë afford every facility for purulent absorption and infection. And, finally, the rough sur-

* See vol. lxiv., page 269.

face of the base of the skull is much more liable to cause laceration of the cerebral substance in any violent injury than the smoother vault would be.

If we leave out the dangers of concussion and compression, we find, in accordance with these anatomical peculiarities of the head, that diffused suppuration of the subcutaneous cellular tissue of the scalp, the transmission of necrosis of the skull to the meninges of the brain, purulent infection from the venous sinuses, and laceration of the vessels and the brain-substance from either fracture of the base of the skull or from contre-coup, constitute the four great dangers to which injuries of the head subject their recipients.

Of the more severe scalp-wounds which we have included in our enumeration of cases, but which we shall not detail at length, about one half had been closed by *sutures* before being brought to the Hospital. The results of these were no worse than those closed by adhesive applications. Erysipelas did not seem to arise in the one more than in the other; and we suspect that the danger of sewing up flesh-wounds about the head has been mainly owing to two causes: either that they were closed too tightly and too long to allow of the drainage of blood, serum and pus, or that the aponeurosis or fascia of the muscle was included in the stitch—the one case being followed by diffused suppuration; the other by necrosis of the skull from sub-periosteal inflammation. While, therefore, we would advocate union by plaster rather than by suture, we think it a point of far more importance to evacuate early and freely any collecting fluids.

Of the 10 cases of concussion, all recovered after rather brief intervals; but two were left with an apparently permanent impairment of mind. In all these the reaction, often excessive, gave the most trouble.

We may be permitted to doubt whether a simple, temporary concussion, or shaking up, of the molecular elements of the brain ever proves fatal, without some palpable, though minute, organic change being traceable after death, to account for such a termination.

Our attention having been directed to such a conclusion by the case which we shall presently narrate, we find strong testimony in support of this belief in Mr. Prescott Hewett's article on "Injuries of the Head," in Holmes's *Surgery*. On page 145, vol. ii., he says:

"As matters stand at present, then, it still remains to be demonstrated that concussion may prove fatal without leaving a trace of injury in the brain-substance." "This conclusion differs, I know, widely from the teachings of some of the greatest masters in surgery; but, I can safely say, there is not on record, as far as I have been able to ascertain, a single instance in which the evidence of instantaneous death from simple concussion of the brain will stand the test of anything approaching to a rigid scrutiny." "But of late years, several pathologists, whose names stand preëminent in connection with cerebral affections, have taught that in fatal concussion

appreciable lesions are to be found in the cerebral structures. True it is that these pathologists are not all exactly agreed as to the precise lesion; some—Chassaignac, Nélaton, Sanson—taking merely the millet-seed-sized extravasations of blood disseminated in the substance of the brain, either on its surface or deep in its structure; others—Dr. Bright, Blandin—taking not only these specks of extravasation, but also the circumscribed patches of contusion. Still these pathologists, one and all, agree in stating, that some deviation from the healthy structure is to be found in concussion of the brain, when it proves fatal. And M. Fano, one of the latest writers on this subject, comes to this conclusion, ‘that the symptoms generally attributed to concussion are due, not to the concussion itself, but to contusion of the brain, or to extravasation of blood.’ And to this I may add, that in every case in which I have seen death occur shortly after, and in consequence of, an injury of the head, I have invariably found ample evidence of the damage done to the cranial contents. Setting aside the cases of large extravasations of blood upon the surface of the brain, the most speedy death has occurred in cases where *specks of extravasated blood have been disseminated throughout the cerebral substance*, or where blood has been extravasated into the structure of the pons Varolii.”

CASE I.—*Diffused Contusion of the Brain*.—May 29th. 1866. Geo. M. T., æt. 56. Patient fell into the hold of a vessel, a distance of fifteen feet. Now complains most of pain in left shoulder and at epigastrium. Left clavicle fractured, and apparently several ribs beneath it. Emphysema general over chest, except in right back; in front, it extends down to ilium.

A wound of the scalp, two inches long, on the vertex, had been closed by sutures, before entrance. A contusion existed behind left ear; a slight oozing of blood from external auditory meatus. Patient conscious; in great pain, over chest and back. Adhesive plaster was applied round the injured thorax. Clavicle adjusted by strapping the arm to the side.

Ten hours after entrance, pain on inspiration; headache; pulse full; delirious. Motion of liquid, in region of heart, heard at every inspiration.

May 30th.—Plasters loosened at his request.

31st.—Complains of dyspnoea and dysphagia; headache; face flushed; pulse 102; tongue brown.

June 1st.—Respiration easier; pain at epigastrium; *left pupil contracted*. P.M.—Becoming noisy and restless; pulse 130; respiration 40.

2d.—More quiet, but weaker; answers incoherently; asks for food, and takes beef-tea and milk; pulse 96, small; respiration 44.

3d.—The same. Has taken more nourishment.

4th.—Pulse 80; respiration 44. P.M.—Respiration stertorous; skin clammy. Died at 6, P.M., one week after receipt of injury.

Autopsy, by Dr. Swan, eighteen hours *post mortem*.—Clavicle fractured transversely. Second rib fractured, both extremities having penetrated the pleura and slipped by each other. Second, third and fourth ribs fractured at neck of rib; but little displacement there. Lungs cedematous and congested; but little effusion in pleura. Scalp-wound not united. Skull not fractured. Between dura mater and arachnoid a thin sheet of liquid blood—beneath the scalp-wound—but no flattening of the brain. Above and between lateral ventricles, for space of two inches, a great capillary congestion and extravasation. On section of the brain in these parts, the *puncta vasculosa* were very numerous and filled with dark blood, which streaked the white cerebral substance, in irregular striae, following the knife. In some places minute clots could be lifted from the *puncta*, leaving distinct cavities behind them; this proving them to be true extravasations, and not simply engorgement of the capillaries; and, as a further proof that they would act as foreign substances in the brain, around one, larger than the rest, distinct yellow softening had taken place.

The same author previously quoted says, at page 157:—"Diffused contusion of the brain is but rarely met with; . . . is sometimes difficult of detection, and, without careful examination, may readily pass unnoticed." "It is characterized by specks of extravasated blood disseminated throughout the brain-substance. These minute extravasations vary, from the size of the smallest pin-point to that of a split pea. In the latter form, the extravasation could hardly escape detection; but in the former, the minute specks might, in slicing the brain, be easily mistaken for the cut surface of the cerebral vessels. A little care, however, will enable us to distinguish between the two. In the case of cut vessels, the specks can be easily wiped away, and then, by gently squeezing the brain, other specks of blood may be made to appear. The miliary extravasations cannot thus be wiped away; but, picked out with the point of a knife, they leave little holes, in which the concrete drop of blood was imbedded. The brain-substance around these minute holes may still retain its natural color; or, some days after the accident, it may be of a yellowish color, such as is so frequently noticed under similar circumstances in bruises of other parts. Thus in Blandin's case, which terminated fatally some eight or ten days after the injury, each little spot of extravasated blood was found encircled by cerebral substance of a yellowish color." "Miliary extravasations of blood, whether clustered together in one patch, or disseminated in various parts, cannot be assigned to concussion alone, but belong, one and all, to contusion of the brain."

"Bruising of the brain-substance may take place where the head was struck; or the bruise may be in a part of the brain far away from the original seat of the injury. The one is a direct contusion; the other, a contusion by *contre-coup*."

"The symptoms by which Sanson thought he could recognize contusion of the brain are, in the severe cases, tonic spasms of the limbs; intense restlessness, with constant tossing about in bed; unconsciousness; drowsiness without stertor; and, in slighter cases, simply *contraction of one pupil*, or of one eyelid; spasmodic movements of the single muscles, &c." "But after careful and patient watching of many cases of severe injury of the head, I must confess that I do not think we can thus clearly recognize a case of contused brain." "Nevertheless, it may be predicted that the brain has been bruised, whenever the symptoms are severe after an injury of the head. One sees patients recover after an injury of the head in whom it is more than probable that the brain was bruised; but of this no positive evidence can be obtained." "That which is most to be feared, when the brain has been bruised, is inflammation of the surrounding substance; and this it is which must be guarded against."

CASE II.—*Fracture of the Base of the Skull; large Effusion beneath Fracture.*—July 25th, 1865. D. P. was brought to the hospital by a policeman, who said he was struck by a man, and his head knocked against a brick wall. Now, speechless and unconscious; pulse 84, and full; breathing natural; will move his right arm and leg on their being irritated, but not otherwise; makes voluntary movements of the left arm and leg; swallows readily.

July 26th.—Breathing more hurried and stertorous; pulse 90, and weaker; swallows with difficulty; unconscious; pupils dilated; urine involuntary. 6, P.M.—Pulse 130; cannot swallow; failing. Died at 12 o'clock.

There were no marks of violence about the body. There seemed to be a very slight depression over the left ear; no bruise, no fracture to be felt; he gave evidence of pain when this spot was touched, yet the depression was scarcely discernible.

Autopsy.—A fracture of the skull extended from junction of left parietal bone with temporal, down through the foramen magnum. A large effusion of blood, with depression of the cerebral substance, was found beneath the fracture.

CASE III.—*Fracture of entire Base of Skull, with Laceration of Cerebellum by Contre-coup.*—April 14th, 1865. Mary G., *at. 35*, fell down stairs while drunk, last evening. Remained unconscious, and breathing stertorously. Bled from nose from time of injury until 11, A.M. Now, 5, P.M., still unconscious, and respiration stertorous; pupils fixed, neither contracted nor dilated; pulse 90, and strong; skin moist; convulsive movements of left arm and both legs; ecchymosis in right upper eyelid; blood in left meatus auditorius, but not in great amount, and no oozing of serous fluid. A depression on left side of head, above ear. Pressure over the depressed spot was followed by movements of right arm. Dr. Cheever cut down over the left ear, and found a fracture extending downwards into the *meatus auditorius*. A loose piece of bone was removed. A circle of

bone was trephined out, near the edge of the depressed portion. The depression was slight, and not enough to warrant further interference. A coagulum of blood was removed. Patient continued comatose.

April 15th.—Pulse 130; respiration 70; comatose; yet pupils now respond to light.

16th.—She died.

The autopsy revealed a fracture across entire base of skull, with a laceration of the cerebellum; a fracture extending into orbit caused the ecchymosis of the right eye, opposite the seat of injury, from contre-coup.

CASE IV.—*Four Fractures of Vault and Base of Skull without external evidence, with Laceration of Brain by Contre-coup.*—May 17th, 1866. R. G., æt. 55, fell from the third story of a store, through the elevator, striking upon his head. Was brought to the Hospital unconscious; breathing stertorous and obstructed by mucus; pulse 60, full and slow; pupils unequally dilated; coma. A very slight cut behind left ear, and an ecchymosis near it, as large as the finger-nail. But, by external manipulation, *no signs of fracture or depression* could be found. The patient laboring under compression of some kind, it was decided to cut down, and examine the skull. Enemata of brandy were given, and heat applied to the feet. A crucial incision made near the ecchymosed spot revealed several fissures of the skull radiating from this spot. Two small fragments of the outer table were removed with dissecting forceps. One portion being slightly depressed, the skull was trephined, the fragment raised, and an angular portion sawed off with a Hey's saw. There was no relief of symptoms, and, as a last resort, the dura mater was incised to see if a clot were compressing the brain; none was found. The patient gradually sank and expired.

Autopsy.—Four fractures of the vault—1st, starting from behind left ear, upwards and backwards around occiput, downwards to the opposite temporal bone; 2d, over towards left orbit; 3d, upwards over frontal bone to the root of the nose; 4th, going up to and opening the coronal suture. The membranes on the *right* side distended by a clot of about two ounces of blood; brain lacerated beneath it. Right lateral ventricle contains bloody serum. No injury of brain beneath the radiating centre of the fractures. The fracture (No. 2) continuing from left orbit downwards, backwards and inwards, across the greater wing of the sphenoid bone, to the internal carotid foramen, where it terminates.

CASE V.—*Fracture of Vault and Base of Skull, followed by Cerebral Softening and Purulent Absorption.*—Aug. 8th, 1866. P. M., æt. 40, was struck by a locomotive. Now conscious; pulse 56; pupils contracted. A scalp-wound, five inches long, extending over right orbit to parietal eminence; depressed bone felt by finger; some hæmorrhage. The external wound being enlarged by Dr. Thaxter,

an oval piece of bone, one by two inches, was found much depressed, and several irregular fragments wedged around it. Three fissures radiated as follows:—1st, towards the occiput; 2d, into right orbit; 3d, outwards, through outer table only. A portion of sound bone was removed with Hey's saw by Dr. Thaxter, and the depressed pieces raised and removed. A small portion of brain-substance visible. Considerable venous hæmorrhage. 6, P.M.—Severe headache; vomiting; thirst; passed urine voluntarily.

9th.—Pretty comfortable night. Pain less; pulse 74. Enema ordered.

10th.—Slept six hours. Pulse 60, and weaker. Has taken considerable beef-tea.

11th.—Good night. Pulse 64; no headache; wound suppurating.

12th.—Slightly delirious; pulse 64; otherwise same.

13th.—Wound discharging very little.

14th.—Rather torpid; answers questions slowly; pulse 79; wound discharging dark, offensive pus. 6, P.M.—Weaker; unconscious; convulsions.

15th.—No change.

16th.—Respiration 40; pulse 140; dura mater bulging in wound. Died at 9, P.M.

The autopsy revealed the fact that the fracture had extended to the cribriform plate of the ethmoid, and that the brain beneath the injury was softened, discolored and offensive.

Numerous soft, circumscribed purulent deposits, without induration, were found in the lower lobes of both lungs; supposed to be secondary abscesses.

Of these four fractures, involving primarily, or secondarily, the base of the skull, all died. One lived only three hours; two lived about twenty-four hours; one lived one week, and died with purulent absorption.

In none of them was the discharge of any considerable amount of blood from the ear a symptom. In none was there any discharge of clear sub-arachnoid fluid from the ear.

Two presented no external evidence of severe injury beyond a trivial ecchymosis, and no symptoms of fracture by ordinary manipulation.

In two cases there was effusion of blood and laceration of the brain on the side opposite the injury, and this seemed the immediate cause of death. In the remaining two there was effusion under the seat of primary fracture.

We pass, now, to fractures of the vault.

CASE VI.—*Fracture of outer Lamina of the Frontal Bone.*—Mrs. —, æt. 32, was struck by a flat-iron over centre of forehead, and several lacerated scalp-wounds produced—one evidently a compound fracture of the skull. There were no symptoms of compression, although she was temporarily unconscious on receipt of the injury.

Dr. Buckingham enlarged the wound, and found a comminuted, depressed fracture near the nasal process of the frontal bone, with radiating lines of fracture in three directions. Small portions of the os frontis were removed by the elevator and forceps. It seemed probable that the outer wall of the frontal sinus was driven in. She recovered in a few weeks, without an unpleasant symptom.

CASE VII.—*Fracture of Vault of Skull, with Depression.*—Feb. 2d, 1865. F. E. W., æt. 8. An hour ago was struck with a small hammer on top of head. Now conscious; complains of constant pain; pulse quick and weak. Two wounds through scalp, with depression of skull.

Feb. 3d.—Still conscious. Wounds enlarged by Dr. Coolidge; both on right of vertex. A circular depression found, one fourth of an inch across; no injury beyond. The depressed fragments were removed by lever and forceps. The dura mater found torn, and the brain is visible.

4th.—Projection of brain from wound in dura mater; pulse 160; bright flush on cheeks; conscious; moans, and complains of head; eyes turned to right.

5th.—Less fever; left arm and leg partially paralyzed; slight stertor; contraction of wrists and fingers.

6th.—Takes no food; wound offensive, dark and dry; pulse 160; pupils dilated; articulation indistinct; feels vaguely for objects towards the right. Died at 9, P.M.

CASE VIII.—*Compound, Depressed, Punctured Fracture of the Skull without Symptoms; Trephining; Splintering of the Inner Table; Recovery.*—June, 1866. Thos. T., æt. 37, mariner. While at work in the hold of a vessel was struck by a piece of iron, falling from aloft, upon the head. The blow knocked him down, but he did not lose his consciousness, and he soon resumed work, which he continued until night. He then consulted a physician, who sent him to the Hospital. He was seen by Dr. Cheever at 10, P.M. There were no symptoms, and he did not desire to remain. The scalp-wound was irregular, and about an inch long; it was over the vertex of the right parietal bone. The finger, passed in, felt a portion of bone, about three fourths of an inch square, deeply depressed and firmly impacted. On the gravity of his injury being explained to him, the patient decided to be etherized and examined.

On enlarging the scalp-wound, the depression was found to be a quarter of an inch below the surface, and small fragments were wedged in vertically on each side. The bone being punctured, comminuted, and evidently depressed below the inner table, it was, after some deliberation, decided to trephine. The operation was done without difficulty, and the fragments elevated and removed. Numerous spicula, splintered off from the inner table, were found under the edges of the sound bone, pressing down on the dura mater; the latter was uninjured. There was a little bleeding from some menin-

geal vessel, which ceased of itself. The edges of the inner table were smoothed with the knawing forceps. The external wound was left open; a wet compress applied. The patient was placed in a dark room, on a low diet, and a purely antiphlogistic treatment carried out.

June 20th.—Has slept considerably; but little pain; pulse 80, full and soft. Water drawn by catheter.

21st.—Wound discharging a thin, bloody serum. The flaps were raised and charpie inserted, to ensure drainage. No uncomfortable symptoms; pulse 78. *R. Magnesiae sulph., ʒ i.*

22d.—Suppuration beginning; pulse 84; patient feels well. An enema of castor oil and turpentine. Continued low diet. To-day, moved sufficiently to change clothes. Perfect rest, quiet, and darkened room.

23d.—Wound granulating; considerable healthy pus; carefully drained by charpie; during the night, moderate epistaxis; pulse 80, full. To be bled from the arm eight ounces. To have iced milk.

25th.—Pulse 78, more compressible; wound filling with healthy granulations.

26th.—Epistaxis again; pulse the same.

28th.—Pulse 72; doing well. May have light admitted to the room.

30th.—Continues well. Broth for dinner.

July 9th.—Put upon full diet.

17th.—May sit up. Wound closing.

28th.—Only a small point of scalp unhealed. No symptoms. Desires to go home, and is discharged, with due cautions.

One month later, is seen, well.

Three cases of fracture of the vault of the skull give two recoveries and one death—the latter occurring in a child of eight years, badly fractured.

Of the three times in which the operation of trephining was done, one recovered; two, both complicated with fracture of the base of the skull, died.

In the latter, accompanied as they were by symptoms of compression, the propriety of operating cannot be questioned, since there were no external evidences of a fracture of the base.

With regard to Case VIII., where the operation of trephining was done, without symptoms of compression, it may, perhaps, be thought open to criticism; and yet we believe the balance of sound authority to be on our side.

We had, in this case, a compound, depressed, punctured fracture of the vault, without any symptoms—the patient continuing at his work several hours after receiving the injury, coming to the Hospital only on the urgent advice of his physician, and being himself desirous to return home without treatment. Yet an exploration revealed a small, deeply depressed fracture, with comminuted edges; and the

operation disclosed a considerable splintering of the inner table of the skull, whose spiculæ were lying detached upon the dura mater, but not compressing the brain. This man recovered without a bad symptom; and being once well, by the closure of the opening, is probably safe from any recurrent symptoms in future. He was subjected to the risks of a grave operation for a prospective, not a present evil. On the other hand, had he gone home without treatment, in all probability the detached fragments of the inner table, cut off from nourishment, would have necrosed, have had no way of exit, and have led to fatal irritation of the meninges of the brain. He would have been, for the present, subjected to the risks of a compound fracture of the skull; and, in the future, to the chances of depression, of intra-cranial suppuration and meningitis.

Mr. Hewett, in the article previously quoted (Holmes's Surgery, vol. ii., page 118), says:—

“But suppose there be a wound leading down to the bone in a depressed fracture without symptoms, what is to be done? Are we to operate at once, or not? The rule is that we are to operate, and at once. Compound fractures of the skull, with depression, most frequently lead, as demonstrated by Sir A. Cooper and Sir Benjamin Brodie, to intra-cranial suppuration; and hence the rule laid down by these celebrated surgeons, that we are to operate to prevent the impending mischief. . . . In the punctured fracture, in which sharp splinters of the inner table are driven down upon, or into, the dura mater, inflammation almost invariably arises sooner or later; and of all compound fractures of the skull, the punctured fracture is, on this account, the most dangerous, and the one which most imperatively calls for the use of the trephine.”

In simple fissures of the skull, unaccompanied by brain symptoms, the same authority tells us, we are not to interfere. In a simple fracture, with evident depression, without symptoms of compression, we are to abstain from the trephine.

To condense, then, the rules of treatment, which the experience of later surgeons than Mr. Pott has taught us, we find them as follows:—

1. In simple fractures of the skull, without brain symptoms, do not trephine.

2. In simple fractures, with symptoms of compression, or in any injury of the head with such symptoms, cut down through the scalp, and if depression be found, trephine. If no depression be found, but a crack, it is an open question whether to interfere, or not. The compression may be due to effusion beneath the seat of fracture, when it would be accessible on trephining; or it may be due to effusion, or laceration, by *contre-coup*, at some distant spot.

3. In a crack or fissure of the skull, without symptoms, do not interfere.

4. In a compound, depressed fracture of the skull, particularly if punctured, with or *without* symptoms, trephine.

The operation of trephining is, as is well known, quite a fatal one. Originally over-estimated by Pott, it afterwards fell into too great disfavor, but has been partially restored to popularity by the favorable experience of it in gun-shot fractures during the late war.

Of the four patients whom we have trephined for injuries of the head, two lived and two died. The latter cases were subsequently found to be complicated with fracture of the base.

We have only one word more to add in regard to treatment after operation. In both our cases of recovery, a strictly antiphlogistic treatment was carried out—a low diet, a dark room, perfect rest, purgatives, and, in one case, venesection.

The happy termination of these cases may have unduly prejudiced us in favor of this now unfashionable mode of treatment; yet if any surgical maladies warrant it, surely injuries of the head must do so; and we shall continue to employ it until we see reason to the contrary.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 184.]

TREATMENT.

It is necessary to quote only a few authors to show the similarity between the treatment adopted previous to the late epidemic and that which is now followed.

General bloodletting was not considered judicious; Dr. Woodward says: "Bleeding was tried, but, I believe, always did harm."

Dr. Gallup, however, considers that bleeding may in some cases be employed with advantage, but he does not advocate its indiscriminate or excessive use. "As it has fallen to my lot to speak in favor of bloodletting and against opium, some might begin to think that my whole intention might be to trust the cure to evacuations and debilitating remedies. But when reference is had to the indication laid down in the first number, this will be set right."

Dr. Hale says:—"I mention evacuation among the remedies for this disease, although I did not employ it myself, nor see any case in which it had been employed; because it has generally been considered a powerful remedy, and because it gives me an opportunity to say that I have had no experience of its efficacy. I was deterred from practising it by the great tendency to debility which I witnessed in the disease, as well as by the reports which I had heard of the disastrous effects which were said to have followed its use in other places."

M. Valleix quotes M. Tourdes, who is in favor of bloodletting, and then adds:—"If, now, we inquire what has been the effect of these losses of considerable blood, we see that they have been scarcely noticeable, and that in spite of copious and numerous bleedings, in spite of leeches, in spite of wet-cups, the disease did not

the less continue its course, and, which ought to be noticed yet more particularly, the principal symptoms were not essentially amended. Here is, moreover, how M. Tourdes judges definitively in relation to the value of this remedy.

"To deny absolutely, says he, the utility of bleeding, would be to fall into an exaggeration as false as the unlimited confidence in the employment of that remedy. The facts would contradict this unjust proposition. There are a certain number of cases in which leeches applied at the commencement and in the two first stages have caused the happiest cures. We could add several successful examples to those which have been mentioned above. In spite of the too frequent inefficacy of bleedings, they have rendered us, in this sad epidemic, more real service than other medicaments."

"This conclusion does not appear to me as exact as could be wished. It was important to quote the cases in which the recovery has been attributed to blood-letting; for it is difficult to understand how a means, which remains without action on all the symptoms, and which in so many cases has no real influence, can succeed in producing in some prompt and rapid cure."

The Committee of the Massachusetts Medical Society did not advocate bleeding, as it was generally thought to be injurious.

Dr. Mann, it will be remembered, saw the disease in its most sthenic form; he says, "the practice was warranted by repeated and acknowledged success, which followed bloodletting."

Dr. Miner recommends to avoid "every thing that might waste the vital powers."

Dr. Ames, of Montgomery, thinks "blood-letting not very satisfactory."

Casimir Broussais was in favor of bleeding, and considered it the only means of treatment during the early stages likely to be attended with success.

Prof. Forget is in favor of general and local depletion, considering the local preferable.*

So also with regard to emetics and cathartics, the opinion of the profession was generally opposed to their employment. Stimulants and tonics were more commonly favored. Sweating, by the application of external heat, was by many held in much esteem.

In the account of Haskell, Spooner and Holmes, it is said, "From these facts it is easy to conceive how cautious we should be in the use of emetics and cathartics in this very singular disease."

Dr. Hale says, "The only object for which I ever prescribed cathartics in the epidemic, was to avoid costiveness. For this purpose, those were always preferred which would be the least likely to give pain in their operation, and would produce the least prostration of strength." He was more favorably disposed to emetics. He also

* American Journal of Medical Sciences, New Series, vol. v.

considered that diaphoretics, tonics and stimulants were beneficial, and favored the application of blisters.

Dr. Gallup advises the cautious use of emetics and cathartics, and says in regard to opium and other stimulants, that their indiscriminate use ought to be discountenanced, but "it will be acknowledged that in certain conditions a judicious use of them may be useful."

Dr. North says, "That the tonic and stimulating method of cure, as opposed to the debilitating plan, is the correct one, I have not the least doubt."

Dr. Woodward says, "Having no guide but experiment, bleeding, vomiting, purging, sweating and stimulating were all tried; sweating appeared to give the most relief." "Bark, opium, ether, peppermint, ardent spirit, wines, stimulating teas, and sweating, with external heat, have been the remedies used, and when applied in season, have seldom failed of success."

So also the Committee of the Massachusetts Medical Society recommend sweating by both internal and external means, and the judicious use of stimulants, as cordials and opium.

Dr. Jared P. Kirtland, of Trumbull County, O., favors light cathartics to move the bowels and obviate costiveness, artificial warmth, tonics and stimulants. He says, with regard to opium: "Opium is almost the sole remedy for general irritability, and when correctly managed, supersedes the necessity for other support even in the most inveterate cases of fever of this variety. It must be so given as to control the system, and continued till the morbid action be subdued."*

Dr. Ames, of Montgomery, Ala., does not consider blood-letting very satisfactory, thinks blisters are beneficial, and does not value opium very highly.†

M. Chauffard considered opium the principal if not the sole remedy necessary. The account which he gives of the manner in which he was led to try that drug is very interesting. He reports cases wherein he failed of success in treating with antiphlogistics and refrigerants, including bleeding, purgatives, emetics and calomel; he also found tonics powerless, either alone or combined with the previous methods. At length he was influenced by the failure of other remedies and the character of the symptoms to employ opium, and was successful. He then remembered that in other cases opium had seemed to check the progress of the disease; and even when given in large doses, instead of aggravating the cerebral symptoms, seemed to have a quieting influence and produced refreshing sleep. Subsequently he used opium in many cases, sometimes combining it with quinia, and found that in large doses it was beneficial, if not producing a cure, relieving the pain and rendering the patient much

* Medical Recorder, vol. xiv.

† American Journal of Medical Sciences, New Series, vol. xvii.

more comfortable. He employs from four to seven grains of opium in twenty-four hours.

Valleix does not consider blisters beneficial, and quotes Tourdes in opposition to their use. Quinia is thought to be rather beneficial than otherwise. Other tonics he would postpone until the period of convalescence.

Thus we see that there was a diversity of opinion on many points. This may have arisen partly from a diversity in the character of the epidemics, or, what is perhaps more probable, from the different systems of practice employed in different countries or at different times. Depletion was generally condemned. Cathartics, except the mildest to merely open the bowels, and emetics, were likewise generally discountenanced. Diaphoresis, especially when procured by external means, was advocated on this side of the Atlantic; not so much in Europe. The opinion was divided with regard to stimulants and especially opium, though generally in their favor.

CAUSES.

The cause of this disease is generally considered to be atmospheric change; there are other influences, which are better known, and which coöperate with this in producing the disease: such are the predisposing causes.

The atmospheric change is not perceptible by any of the means of analysis at our command; its origin may be from sudden changes in temperature, unusual dampness or warmth, or, on the other hand, cold and damp weather, or it may arise from circumstances not now considered related to it. M. Faure Villar says, with regard to the prevalence of this disease at Versailles:—"The epidemic had two outbreaks—one in April, the other in May. They appeared to arise from atmospheric variations, and from the fatigue of military exercises."*

"No particular change in the atmosphere that can be discovered, though probably the disease sprang from atmospheric causes."†

"It could so much the more properly be attributed to the influence of the air, as it attacked every station and different quarters of the city and of the country, without any trace of contagion."‡

It is frequently epidemic, prevailing with great violence, and at such times is very mortal. Such epidemic seasons have been seen in this country during 1807-14, 1819-27, 1847-50, and since 1861. But the disease has been noticed during other years, as the previous pages abundantly show, in a less severe form; indeed, since its first well-authenticated appearance in 1806, there have been only twenty-four years in which it has not been found to exist in some part of

* *Revue Médicale*, t. lxxi.

† M. Vieussieux on *Cerebro-spinal Meningitis* at Geneva, in the *Jour. de Med., Chir., Phar., &c.*, t. xi.

‡ At Geneva, in 1850, *Jour. de Med., Chir., Phar., &c.*, t. xi.

the United States, and it probably prevailed during many of those years, but no records have been left to testify with regard to its presence, at least none have been found by the author. In foreign countries the same epidemic seasons have been encountered, as in France from 1837 to 1849.

Sporadic cases are comparatively mild, and it is only when this disease rages with the violence of an epidemic that the notice of the public and of large numbers of the medical profession is attracted to it sufficiently to record the results of their observations. During epidemics, the mortality has been sometimes very great, even as high as 60 or 80 per cent., generally more than 50 per cent. The question then arises, is the disease contagious, or can it in any way be propagated from one individual to another perfectly healthy? The general opinion among those who have seen much of the disease is, that it cannot be thus communicated: though many consider it slightly so, and give instances where it certainly seems to have been communicated, though most of the persons affected by that means have been a long time residing with the sick, in the same houses, even in the same rooms, as nurses and attendants.

The Committee of the Massachusetts Medical Society, in 1810, reported that it was very generally agreed that the disease was not contagious.

Dr. Daniel Hudson, of Niagara, says:—"I am, from actual experience, enabled to assert that it is not of that class of diseases which may be communicated by contagion."*

Dr. J. L. Miller, in speaking of the epidemics of Virginia, says:—"I saw nothing to justify the opinion of its being contagious."†

Dr. Vaughan, of Hallowell, Me., writes:—"If the disease be contagious, the contagion fortunately so operates that the humane attendants on the sick scarcely suffer more by it than those who shun their duty in this respect."‡

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 4, 1866.

IMMUNITY FROM CONTAGIOUS DISEASES.

ONE of the most curious facts in the history of contagious or epidemic diseases is the immunity which certain persons seem to enjoy from their attacks. The experience of every physician must supply him with instances illustrative of this. It is not uncommon to meet with people who have arrived at adult age without having contracted

* American Medical and Philosophical Register, vol. iii.

† Philadelphia Journal of Medical and Physical Science, vol. v.

‡ Medical Repository, N. S., vol. iii.

scarlatina or whooping cough, for instance, who have been more or less exposed to both of these diseases, which by the majority of physicians are regarded as contagious. Certain families seem to possess this immunity in a marked degree. So numerous are such exceptional instances, that if, in the present state of medical knowledge, with the present tendencies of the medical mind, the question of the communicability of these diseases could come up *de novo*, we have no doubt the negative side of the question would be maintained with an energy which under present circumstances is hardly possible. The same exemption is observed in the case of all other contagious diseases. Fortunate, indeed, is it that this is the case, for were it otherwise, as has been well remarked, the human race would have become extinct long ago.

The sort of exemption which individuals appear to enjoy, attaches, in like manner, to certain places. Whole communities, for example, hardly know what diphtheria is, while others not far off, for no assignable reason, suffer severely from repeated visitations of this terrible disease. Our own city is a marked instance of the former, and it would not be difficult to refer to smaller places, apparently quite as well situated hygienically, within fifty miles of us, where it is a much more frequent and fatal visitant.

The same immunity of individuals and communities has been observed with regard to Asiatic cholera, and constitutes one of the most puzzling questions in the history of this disease. Again we may quote our own city as having been singularly favored in this respect. Past epidemics have hardly touched us, and so far during the present year we have scarcely felt the breath of the pestilence. Some signal examples of a similar character have been noticed in Europe. It has been ascribed by different observers to the influence of a granitic soil, or to the altitude of the locality above the sea; and although there would seem to be some ground for their opinions, yet the rule is not without a good many exceptions. Many towns in Europe are said to enjoy the immunity of which we are speaking, but certainly one of the most remarkable is the city of Lyons. The following facts concerning it we take from the interesting report of the Commission of the International Sanitary Conference, an abstract of which we published a few weeks since.

"This city, of 400,000 souls, seems at first sight to combine all the conditions favorable for an epidemic of cholera. Situated at the confluence of two rivers, if, on the one hand, it is based on an Alpine soil, on the other it rests upon alluvium. It contains a large collection of workmen; the causes of insalubrity and misery are not wanting; furthermore, it is on the great line of communication which traverses France from south to north, and it has served as a place of refuge for large numbers of fugitives from places where cholera was raging. In spite of all this, Lyons has, so to speak, resisted up to the present time the cholera influence. It entirely escaped the first epidemic, which, in 1832, ravaged the north of France, then that which ascended the Rhone in 1835. Later, during the epidemic of 1849, a barrack was invaded, and some cases of cholera showed themselves in the neighboring quarters; but after three weeks it all disappeared. In 1853, when cholera raged in the department of the Drôme, the disease appeared at Lyons, and reached the number of 400 cases and 196

deaths, after which it died out. Finally, in the year 1865, cholera has not been signalized, so far as we know, except, perhaps, by isolated cases which have come from without. It cannot be said that Lyons has escaped because there have been no arrivals from cholera districts; far from this, such arrivals have been very numerous; the disease has been imported there and has sometimes developed itself just enough to show the power of resistance of the native population, or, if you please, the locality, to its propagation."

This sort of immunity is a standing argument with those who deny the communicability of cholera. They demand its explanation from those of opposite views, or claim that it proves the *non-communicability* of the disease. Of a similar character is the argument deduced from the impossibility in many instances, particularly in large communities, of tracing every case of Asiatic cholera to direct infection. Failure to do this is claimed as evidence that it cannot be due to such a source. The same argument would have equal force in the case of smallpox or any other acknowledged contagious disease. Our want of knowledge in one direction should not outweigh positive knowledge in the other. The arguments in both of these instances are, in our estimation, of equal value, and that is just nothing.

Cholera in Paris.—We find the following in the *Union Médicale* of September 13th :—

The *Moniteur* at last speaks to-day, and the note which it publishes releases, without doubt, for the future, the medical journals from the silence which they have been asked to preserve during the reigning epidemic. The following is the official note.

* * * * * The epidemic reappeared at the beginning of July. It reached its maximum in a few days, without a higher rate of mortality, in the hospitals and city together, than 150 deaths per day. Since the end of July the epidemic has sensibly diminished. The average number of deaths, in the hospitals, was, during the month of August, 23 daily. It has not been higher than 15 for the nine first days of September. We see, by these figures, particularly if we compare them with the whole population of Paris (1,667,841 inhabitants), that the epidemic has been very mild in the capital, and that in a few days it will, in all probability, disappear. In a city which, like Paris, contains an immense working population, it is the hospitals which give the measure of the importance and the condition of the epidemic. As for the deaths which have occurred in the city, they have never reached a very high figure, and since the first of September they have sunk to the average of 22 per day.

History of a Case of Cholera.—Dr. I. Morrell, of Fulton, N. Y., under date of August 21, communicates the following to the *Medical and Surgical Reporter* :—

"In looking into the fourteenth volume of the *Reporter*, page 355, I see an account of a case of Asiatic cholera that occurred in the village of Topsham, Me., in February, 1832. The facts are these:—a sailor arrived at his home in Topsham, from Europe, having had cholera in Bremen, where, as well as on the continent, the disease was

very prevalent. After coming on board ship, he trailed his clothes for several days, when they were dried, and deposited in his chest among some trinkets for a little sister. She unpacked them the evening of his arrival. About two o'clock the following morning the little girl was taken violently sick, and Prof. McKeen was called, and seeing some symptoms unusual, asked Profs. Mussey and De Lamater to call in. They were unanimous in the opinion that it was a case of Asiatic cholera. There had been at that time no cases of Asiatic cholera in the country."

THE following curious incident is related in the *Journal de Médecine de Bordeaux* :—

On the 19th of May last, at about half past nine in the morning, M. M***, the Professor of Physics in the Lyceum of Marseilles, was explaining to his pupils in special mathematics the perturbations of the magnetic needle, which are only caused by violent storms, the aurora borealis or earthquakes; at the same time placing before them a very long needle, recently purchased for this lesson. "You will see, gentlemen, that it will take its disposition of equilibrium and remain immovable." Not at all! The needle trembled and oscillated to the right and left in an extraordinary manner. The malicious scholars began to laugh. M. M*** ascribed it to a bunch of keys which he thought he had in his pocket; but it was not so. He looked about to see if there was not a piece of iron in the neighborhood. All of a sudden the needle made a complete circuit. "Gentlemen," said the Professor, "in confirmation of what I was explaining just now, you have here the evidence of an earthquake; yes, gentlemen, for the state of the sky, the barometer and the immobility of the needle since the morning do not admit either a storm or an aurora borealis. Let us observe the seconds on this watch; be attentive!" After three minutes of anxious silence the glasses rattled, the windows shook, the rumbling came, four distinct shocks were felt, strong, from east to west: they continued nearly four seconds, and the needle did not become entirely quiet until after eighteen minutes of agitation, after which the lesson continued. The pupils, at the end of the lesson, begged the professor not to abuse this kind of experiments. The earthquake was distinctly felt in the town.

Medical Prizes.—The following prizes deserve the general attention of the medical profession, and offer an excellent opportunity for earning professional distinction. They are all of practical importance. The first two ought, certainly, after the army experience of so many of our brethren, to draw out papers of the greatest value to the world at large. Surely no class of men, of late years, have had such ample opportunities as they for studying these subjects. The third is of great importance at this time, when the subject of life insurance is engaging the attention of so many active minds.

THE ASTLEY COOPER PRIZE.—The subject for this prize (the 9th triennial), to be awarded in 1858, is Pyæmia. The value of the prize is £390, and under the will of the late Sir Astley Cooper, all members of the medical profession, whether natives of England or any other

country, have the liberty of contesting for this honor, with the exception of those comprising the surgical and medical staff of Guy's and St. Thomas's Hospitals. Essays, either written in the English language, or, if written in a foreign language, accompanied by an English translation, must be sent addressed to the Physicians and Surgeons of Guy's Hospital, who are appointed under the will the adjudicators of the prize, on or before January 1st, 1868.

JEWETT PRIZE.—This prize of two hundred dollars, to be awarded March 1st, 1867, is offered by Prof. Jewett, of Yale College; subject, The best Hygienic Means of preserving the Health of Armies, whether in the Field or in Camp, at rest or in motion. For details, see the advertisement in this week's JOURNAL.

PRIZE OF THE AMERICAN POPULAR LIFE INSURANCE COMPANY, OF NEW YORK.—This company offers a prize of a Paid-up Life Policy, for \$500, for the best essay on the Physical Signs and other Indications of Longevity. The essays may be written in any language, and should be sent to the Company, with the writer's name enclosed in a sealed envelope, previous to January 1st, 1867. It is desirable that the signs inhering in the individual, and therefore directly observable, should be fully treated.

PRIZE OF \$100 FOR THE BEST ESSAY ON EXPECTANT MEDICINE.—We would remind our readers that this prize is still offered to the medical profession through a Committee of which the President of the Massachusetts Medical Society is Chairman. The details concerning it have already been given in this JOURNAL.

Typhus and Typhoid Fevers.—At a recent meeting of the Dublin Medical Association, Dr. Henry Kennedy brought forward a number of interesting cases, where the symptoms of typhus and typhoid (or enteric) fever were so mixed that it was impossible to say under which disease the patient was laboring. Dr. Kennedy used these cases in support of opinions, long held and often expressed by him, that typhus and typhoid fevers were only varieties of a disease produced by one common poison; and that the diseases were not specifically different. He also detailed cases supporting the same views, where the typhus and typhoid forms of fever had arisen in different members of the same family at the same time.—*Buffalo Med. and Surg. Journal.*

Kreasote in Diphtheria. By J. J. KNOTT, M.D., of Griffin, Georgia.—Owing to the speedy and happy results following the use of kreasote in diphtheria, coming under my observation, I am induced to give, in a short article, the manner in which it has been employed by me during the past three years, in military and civil practice.

In the year 1863, while in charge of the smallpox hospital for Longstreet's Corps, Army of Northern Virginia, diphtheria prevailed to such alarming extent, as a sequel of that loathsome disease, variola, and the mortality was so great in the cases under my care, that I was induced to look out for some more useful mode of treatment than had been used in its management previously. Regarding the disease, in the earlier periods, as local in its character, and of a septic tendency, I determined to test the virtues of this powerful antiseptic, local alterative and styptic.

The first case in which I used it was a very malignant one; so much so, that at one time I had almost despaired of his recovery. The following formula gives about the strength in which the remedy was applied to the parts affected:—℞. Kreasote, ʒij.; aqua font., ʒij.; pulv. acacia, q. s. A sponge saturated with the kreasote thus suspended in mucilage, was applied to the parts where the pseudo-membranous exudations were exhibited, early in the afternoon. In a few hours another application was made, and, without further treatment, all the more violent symptoms disappeared during the night. On the following morning my patient seemed so much relieved that further treatment with the remedy was unnecessary.

Continuing this application in the treatment of subsequent cases, I lost no more cases from this disease.—*Atlanta Med. and Surg. Jour.*

Among the brevet promotions recently published is one of Dr. Henry A. Martin, of Roxbury, late Surgeon U. S. Vols., to be Lieut. Colonel, for "meritorious and gallant services," to date from March 13th, 1865.

SURGEON-GENERAL BARNES, who was taken seriously ill at Chicago, returned to Washington, Sept. 17th. We are happy to announce that there is every prospect of his soon being able to resume his official duties.—Dr. B. A. Vanderkief, Brevet Colonel and Surgeon, U.S.V., died in Rochester, N. Y., of hepatic abscesses, Sept. 8th.—*Medical Record.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 29th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	50	29	79
Ave. mortality of corresponding weeks for ten years, 1855—1865	47.7	41.8	89.5
Average corrected to increased population	00	00	98.35
Death of persons above 90	0	0	0

BOOKS RECEIVED.—Pereira's *Materia Medica and Therapeutics*. Philadelphia: Henry C. Lea.—*Orthopedics; a Systematic Treatise on the Prevention and Correction of Deformities*. By David Prince, M.D. Philadelphia: Lindsay & Blakiston.—*A Treatise on the Origin, Nature, Prevention and Treatment of Asiatic Cholera*. By John C. Peters, M.D. New York: D. Van Nostrand.

MARRIED,—At Castleton, Vt., Dr. Sept. 25th, John Knowlson to Miss Caroline Langdon.

DIED,—At Guilford, Conn., Dr. Atherton Clark, formerly of Easthampton, and father of Prof. W. S. Clark, of Amherst College, aged 77 years.

DEATHS IN BOSTON for the week ending Saturday noon, Sept. 29th, 79. Males, 50—Females, 29. Accident, 2—congestion of the brain, 1—disease of the brain, 3—bronchitis, 1—cancer, 3—cholera infantum, 9—cholera morbus, 2—consumption, 15—convulsions, 4—diarrhea, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—dysentery, 2—typhoid fever, 4—gastritis, 1—disease of the heart, 2—hemorrhage, 1—infantile disease, 1—intemperance, 1—disease of the kidneys, 1—lichen, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 2—marasmus, 2—paralysis, 1—purpura hemorrhagica, 1—smallpox, 1—unknown, 8—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 5—between 20 and 40 years, 18—between 40 and 60 years, 16—above 60 years, 9. Born in the United States, 57—Ireland, 14—other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV.

THURSDAY, OCTOBER 11, 1866.

No. 11.

CASE OF GASTROTOMY.

To the Editors of the Boston Medical and Surgical Journal.

THE following case of gastrotomy, although terminating fatally, seems of sufficient importance to warrant me in presenting it to your JOURNAL for publication.

My friend, Dr. J. W. Cushing, has furnished me with notes of the case previous to the operation.

August 17th, at midnight, he was called to see Mrs. M. W., of Roxbury, æt. 40, in her thirteenth confinement. Her previous labors, though severe on account of the size of the children, had terminated well, and she had since enjoyed very good health. She weighed, just before this confinement, about 240 pounds. Dr. C. learned that the liquor amnii had passed off at about 9 o'clock the same evening; that the pains, though infrequent, had been very severe until about 11 o'clock, when they had ceased. She appeared quite comfortable, though complaining of "cramps" in the right hypogastrium and in the right shoulder. He found her lying on her back. Pulse 84, regular and sufficiently strong. Skin natural to touch, warm and moist. No loss of strength. In fact, there was nothing to indicate rupture of the uterus. She had not had any of the usual symptoms of that lesion, so far as could be ascertained, previous to his arrival.

The appearance of the abdominal tumor attracted his attention from the fact that the whole mass was lying between the thighs. The umbilicus was at the apex of the tumor, and was a little lower than half the distance between the pubes and knees. The patient informed him that she had carried several children in the same manner, and had never been inconvenienced materially by the pendulous abdomen.

Upon examination, the os uteri was found dilated, and the head presenting. Dr. Cushing advised the administration of hot tea and the application of hot cloths to relieve pain.

Finding that the pains did not return, he gave ergot, and subsequently opium, as she only complained of the "cramps," as before.

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He requested to be called should anything untoward occur, and left her, thinking rest was needed.

At 6½ o'clock in the morning he again saw her, and learned that she had had no labor pains, but that the "cramps" still annoyed her. She informed him that she had slept some since his visit. Upon examination, the patient being on the left side, he found that the head presented, as before. He then decided to deliver with the forceps, but before he could introduce one blade, and without any sudden pain, the child receded. An examination showed that the child had passed through a rent in the fundus uteri, about five inches in length, into the abdominal cavity. Soon he noticed the escape of intestines into the uterus and vagina. He acquainted the husband with the nature of the accident, and was kind enough to request that I might be called.

I saw her about quarter before 9 o'clock. She was lying upon her back; feet and legs cool; pulse about 100, small and regular; countenance not indicative of much pain; mind clear. She still complained of pain in the shoulder and right hypogastrium. Upon examination, I found a portion of small intestine and omentum, about half the size of a foetal head, protruding from the vagina. Any attempt to press the mass back causing so much pain, it was deemed best to administer ether. After the consent of herself and husband had been obtained to the performing of any operation which might be necessary for her delivery, she was etherized. The intestine was gently passed through the rent in the uterus, and the child examined, to see whether it could be delivered by the natural way.

The uterus was not contracted; the placenta had escaped into the abdominal cavity. No hæmorrhage was escaping by the vagina. The child was so large as to forbid its passage through the pelvis of the woman without extracting it in sections.

Finding that it would not be justifiable either to let her die undelivered, or to attempt delivery by the forceps or turning, I placed the patient on her back, and having raised the depending abdominal tumor, made an incision about five and a half inches in length, from a point about an inch below the umbilicus, on the median line. The child was delivered readily, followed by the placenta and a large quantity of coagula. No portion of the intestine escaped. The abdominal cavity was emptied of what blood it contained, and the edges of the wound were brought together with nine or ten interrupted sutures. A bandage was placed around the abdomen, and stimulants given.

She soon became conscious; said that she had no pain. Her pulse was about 84, very good. A vaginal examination showed the uterus to be contracted quite firmly. There was about the usual amount of hæmorrhage from the external parts. She was directed to take stimulants freely, and pil. opii, gr. i. every hour, if in pain.

Dr. Cushing, who saw her subsequently, says that she was free

from pain, and that her mind was clear up to the time of her death, which took place thirteen hours after the operation. It is regretted that no autopsy could be obtained. The child, stillborn, weighed fifteen and a half pounds.

S. H. CARNEY, M.D.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 207.]

DR. HALE, of Gardiner, Me., says:—"The epidemic which has so extensively ravaged our country is generally believed not to be contagious. This is fully my own opinion." "That contagion was not the sole cause of the extension of the epidemic, is obvious from only a very slight attention to the facts mentioned in the chapter upon the character of the disease. It often attacked persons who previously had never been within the sphere of its influence, however contagious it might be supposed to be. At the same time, it frequently happened that one individual in a family was affected and went through a course of it, while all the rest of the family escaped; and in two instances the fever proved fatal to the only person in the family who was attacked. These facts are not consistent with the supposition of a very active degree of contagion.

"It is indeed true, that when the fever appeared in a family, there seemed many times a disposition to extend the number of its victims beyond those first attacked. But besides that they all must probably have been equally exposed to the remote cause of the disease, this may be accounted for by the great fatigue and anxiety which a state of sickness occasions. Wherever this happened, those members of the family who had been the least constantly in the sick room, were as frequently attacked as others who had been uniformly engaged about the sick bed. There were a few persons who were almost constantly employed, through the whole period of the epidemic, in attending upon the sick, and occasionally in performing the last offices for the dead, without being at any time attacked by the fever. These facts appear to prove, as strongly as a negative can well be proved, that this was not a contagious disease."

M. Valleix says, in his "*Guide du Médecin Praticien*," "In no locality has it been possible to verify the evident existence of contagion."

During an epidemic of this disease among the galley slaves at Toulon, of which M. Fleury has given an account, there seemed to be no tendency to spread by contagion beyond those in immediate contact with the sick and residing with them. He says:—"Those who went out in the morning from this galley to return thither only at evening, have been employed with, and have had constant intercourse with their comrades and the free workmen from the 15th December even to the end of January, and nothing resulted from that communication."

"The same observation was made at St. Mandrier, where, although separately lodged, they have been employed in works in common with those who have dwelt there a long time. There was no patient who entered the hospital on that account; they came from the foci of infection; and it was in approaching them to keep them constantly clean, to administer to them the consolations of religion, to watch the employment of medical prescriptions, to apply and dress blisters and sinapisms; it was in breathing near them a heavy, nauseating odor, which affected unpleasantly the sense of smell, that an ordinary, three sisters of charity, twelve officers of health, agents of inspection and several servants were attacked. More than twenty days had elapsed before an appearance of contagion was manifested, and it must be remarked that none of the persons treated in the city in the midst of their families, or in the principal hospital, have transmitted the disease either to their relations or to their nurses. A chaplain, an officer of health and a servant have been the only victims of their zeal."

At Blakaton, near Ashburton, one family was attacked, and one other person who had not been near them while sick, but the disease did not spread farther.*

Dr. Savage, in his account of the epidemic which occurred in New London, Conn., in 1832, says that no trace could be discovered to favor the idea of its introduction from abroad, and the physicians of the town were unanimously of the opinion that its origin and progress were entirely unconnected with contagion in the proper acceptation of that term.†

"As to infecting causes, none of my observations have furnished me with proof that they have had the least influence on the development of encephalo-meningitis."‡

At the present time, and during the late epidemic, Dr. Gerhard, of Philadelphia, writes:—"In this State it has struck particular localities, not, however, rigidly confined to them, but extending to detached habitations, and attacking persons who had not been in the neighborhood of any sick. It presented a tendency to be confined to families. It did not necessarily extend itself to the neighbors who were constantly engaged watching the sick, nor was the reception of one patient into a house at all the cause of attack of disease to others. There is no reason to conclude that it is in any way contagious."§

Dr. Liddell says, in regard to three cases which occurred at the Stanton General Hospital, Washington, D. C., in 1864:—"These cases occurred in portions of the hospital widely separated from each other, and that no relation by contact whatever can be traced between them."||

* Medical and Physical Journal, vol. xxviii.

† Boston Medical and Surgical Journal, vol. viii.

‡ M. Roller, in Mem. de l'Acad. de Méd., t. x.

§ American Journal of Medical Sciences, vol. xli., July, 1863.

|| Ibid, January, 1865.

Dr. Luther Parks, jr., of Boston, in the *Boston Medical and Surgical Journal*, vol. lxii., gives as a reason why this disease is not the same as scarlatina, "that there has been no evidence of contagion among the cases. My case, it will be remembered, occurred in a school of thirty-five boys, among whom there was no second case."

Some of the above opinions are expressed strongly in opposition to the doctrine of contagion; but, on the other hand, instances have been known where there seemed to be reason to suspect contagion, at least in a slight degree. The cases of nurses and attendants at Toulon, who suffered with the disease after taking care of the sick, would favor the doctrine of contagion; but it was not communicated by the galley slaves who lived near the sick and worked with those who were healthy. It was only those who lived in the midst of an impure atmosphere, who were constantly engaged in attending the sick, and who may be supposed to have been exposed to many of the influences which first aroused the disease into action, who were attacked.

Dr. Mistler says, with regard to the disease at Sélestat:—"The epidemic of cerebro-spinal meningitis which prevailed at Strasbourg for some time past, has been brought to us, at least according to all appearances, by the battalion of the 29th regiment of the line, which left Strasbourg about two months since and came to garrison Sélestat." A few soldiers had the disease after their arrival, and then it appeared in the neighborhood of their barracks, and afterwards extended to the interior of the city. He says:—"The 1st, 2d, 5th and 6th companies of the 3d battalion of the 29th regiment of the line left Strasbourg on the 4th of last February and arrived at Sélestat the next day, the 5th, after having passed the night at Estein, where they lost a man from the meningitis. On the 7th, that is to say two days after their arrival in our city, a drummer attacked with that disease was admitted to the hospital, and died there. On the 9th, I saw the first case, in a public house which is exclusively frequented by the troops of the line. In short, it is in the quarter called the *Quai des Pêcheurs*, and in the neighborhood of the barracks, that nine tenths of the cases have been observed up to the present time. However, that quarter was not found in worse hygienic conditions than all the lower part of the city, comprising the *Rue des Fèves*, the *Quai des Tanneurs*, the *Place de la Prison*, which are thus far exempt. This epidemic coincided perfectly with the arrival of the above-mentioned battalion, and it prevailed exclusively among that corps, without attacking the squadron of the seventh lancers, which also keep garrison here, and who as yet have had only one man sick with the meningitis."

M. Corbin, of Orleans, speaking with regard to contagion, says that, during the epidemic of the winter of 1847-48, a young woman,

* *Encyclographie des Sci. Med.*, 1841, t. vi.

mistress of a soldier, sickened and died, but it is not certain whether the soldier was attacked. This girl was the only civilian who had the disease well marked, though three children seem to have had it, two of whom lived distant from the soldiers.*

M. J. B. Comte, who saw the epidemic at Grenoble in 1814, says: "Several persons living in the country, who quartered Austrian soldiers, died of the disease. A young woman of Grenoble, who had been to visit her sick relations in the country, returned to the city, where she died of the disease, with complications of tetanic rigidity.†

The epidemic at Cambridge, Eng., during the spring of 1815, spread, apparently by contagion, more than some others. A servant girl who was employed in one of the colleges returned home, where she had the disease; some members of her family sickened, and her father died. Other cases of a similar nature are said to have been known; but nurses and medical attendants did not suffer more than others.‡

M. Poggivli says that, during the prevalence of the disease at Saint Etienne, in the month of October, 1848, "two men of the 22d regiment of the line, occupying the same bed, were attacked in town, one two days after the other, and died; when I was called to the first, his comrade presented none of the prodromes of this disease.

"From the barracks of Jarre a man was carried to the hospital, affected with the disease in a very severe form; a soldier, who comes off guard, lies in his bed, and is also fatally attacked twenty-four hours after."§

M. Leroy Dupré, Surgeon to the 55th regiment of the line at Avesnes, states, in confirmation of the doctrine of contagion: "In the month of February last, a man was taken all at once, and without known cause, with violent pain in the head, accompanied with fever and vomiting. Forty leeches and a proper diet caused these symptoms to disappear, and convalescence commenced, when the same phenomena were seen in his son. They were so intense that they put his life in the greatest danger. All the symptoms which characterize what is known as meningitis, left no doubt in regard to the certainty of the diagnosis. The little patient recovered under the influence of a treatment in which the antiphlogistics were employed only with reserve. During the course of his disease, the house servant was herself confined to her bed, complained of an acute headache, with fever, which showed itself by a frank inflammatory angina. Certainly there was nothing very remarkable in this; but that which is not uninteresting to mention is the following fact. The comatose state of the young man having necessitated the application of a blister on the head, I passed nearly an hour in stooping

* Encyclographie des Sci. Med., 1845, t. v.

† Recueil Gen. de Med., t. lviii.

‡ J. Haviland in Med. Transactions of the College of Physicians in London, vol. v., 1815.

§ Bul. de l'Acad. de Med., t. xiv.

over the patient to shave his hair. The length of the operation, the fatigue, together with an abundant perspiration, caused in me considerable languor, to which succeeded a cephalalgia, which lasted three days. At length, in the commencement of the month of May, the sister of the young patient was taken in her turn with an intense cephalalgia, with vomiting and fever. This was the only person of the family who had not been sick, for the mother herself had been for a certain time subject to pain in the head and vomiting. The cephalalgia of the young girl lasted several days; it was the prelude of an eruption resembling scarlatina and miliaria, which was happily cured by a rational treatment. Taken alone, these facts are far from being convincing, but joined with the documents, already numerous, presented by M. Boudin, I believe that they can only contribute to clear up the origin and method of propagation of the disease.”*

M. Gaultier de Claubry, in his report to the Academy of Medicine on the memoir of M. Boudin, says:—“With regard to contagion, M. Boudin has collected numerous documents which show the meningitis affecting sometimes in an exclusive manner the soldiers of different garrisons, sparing completely the civil population, who have little or even no intercourse with these soldiers; sometimes, on the contrary, existing in the heart of the civil population and not extending among the soldiers; here circumscribing its action on the soldiers of a barrack, sparing the military prison, whose inmates have no intercourse with their comrades remaining free; there attacking exclusively the prisoners, and sparing the soldiers in the barracks; elsewhere seeming to travel with the regiment, so that, starting from a city where the disease prevails, and going far away to garrison another city, where the affection had hitherto remained completely unknown, it was manifested in a short time after the arrival of the regiment, it may be among the companies into which the new arrivals were incorporated, it may be even among the inhabitants who had had intercourse with them; then again, the disease seems as if it was permanently settled in certain garrisons, in spite of the frequent changes of the troops; and, on the other hand, seeming to follow everywhere the same corps, in spite of frequent changes of garrisons; besides, M. Boudin shows the disease of the soldiers propagated among the surgeons, the sisters of charity, the ward tenders, the sutlers, the women who frequently visit the soldiers of the regiments where it prevails.

“Considered *in globo*, these considerations give matter for reflection, because of a certain analogy which they seem to indicate with that which takes place in the case of typhus of the armies. On the other hand, if they are examined more critically, it is found that some of these documents are purely administrative, coming from the council of administration of a regiment, or from the bureau of an

* Bulletin de l'Acad. de Med., t. xiv.

intendant, and hence of medium value for physicians somewhat particular with regard to facts for proofs; others indicate only in a laconic manner the wanderings of various corps from one garrison to another, without indicating the number of the sick, the ratio of these to the healthy portion of the regiments, or the civil population; a small number contain the formal opinions of some physicians. Several of these agree with M. Boudin; a large number cannot admit contagion."

M. Claubry does not think the disease contagious.

After quoting thus much of the report, it is hardly necessary to give the statements made by M. Boudin.

In the early part of this century, during the prevalence of the disease in one of the towns in the interior of New York, search was made to discover its origin. It was learned that a young man who had just arrived from a village in Connecticut, where the disease prevailed, was the first person attacked. Afterwards, others who lived near where he was during his sickness, became sick, and subsequently it spread to other parts of the town.*

Dr. Walter F. Atlee, speaking of an epidemic which occurred among the children in a charitable institution in Philadelphia during 1864, says:—"It is worthy of mention that the disease broke out two days after clothing had been placed upon the children, that came from Manayunk. It is impossible to find, however, that this clothing had been in contact with any persons affected with the so-called spotted fever, which is said to prevail in that part of the country. The sister (of charity) who was attacked was not the one who was attached to the infirmary, or one more in contact with the sick than another."†

Dr. Wm. T. Cleland, of Kewana, Fulton Co., Ind., under date of July, 1865, says:—"My observations, although limited, have convinced me that this disease, under an epidemic condition of the nervous system, and a vitiated condition of the secretions and circulation, is contagious.

"In proof of this assertion, I will present a case or two which came under my own observation. On the 12th day of April last, I was requested to visit Wm. H., æt. 15 years, who was taken with a violent chill in the night, after an excessive day's labor. At 2 o'clock, April 14th, he died.

"Miss J. M., a schoolmate, who was in attendance upon this young man during his sickness, was attacked on the 16th in a milder form, there being not as much excitement of the nervous system. On the fifth day, she died.

"In another locality, some five miles southeast, I was, on May 9th last, requested to visit the infant child of Dr. S. In two days after I

* The reference to this case was mislaid.

† *American Journal of Medical Sciences*, July, 1864.

visited this child, two of the older children of the same family had a violent attack of the disease while in the field."

The above facts show that the disease which we are considering is not generally contagious; but if a large number of patients are collected under circumstances favoring such a result, it may be communicated to persons apparently healthy, especially if fatigue, anxiety, or any depressing influences coöperate. The contagious principle is, however, very slight, and readily dissipated, so that only occasionally does a single patient in a family cause it in others, and no instance has been found in which it could be proved that the disease was conveyed by means of clothing or other fomites, and there seems to be no danger that a person after attending upon the sick will communicate it.

The high rate of mortality and the extensive prevalence of the disease during an epidemic cannot, then, be due to contagion, and other cause must be sought.

In many cases in foreign countries, and in some instances in our own, especially where the disease has appeared in the army, the attendant surgeons have asserted that unusual fatigue, together with neglect of hygienic rules, seemed to be the principal predisposing causes which were found most frequently among the new recruits, and hence the conscripts who had lately joined their regiments were the most frequently attacked during the prevalence of the disease in France.

"Its severity in the army (of the United States in 1812-14) is to be attributed to the sudden change of the mode of living of the newly enlisted soldiers, to intemperance, and to exposure to the weather."*

M. Rollet says:—"There can, then, be mentioned as predisposing causes, the recent incorporation of young soldiers and their want of training in military exercise. It is necessary to observe, also, that it is among soldiers arrived in the corps since less than a year, that the greatest number of grave cases is found—ten out of fifteen whose time of arrival is noted."†

M. Claubry, in his report before the Academy of Medicine on the epidemics which occurred in France during 1848, says of this disease:—"The garrison of St. Etienne was composed of two squadrons of dragoons, all old soldiers; of 1100 men of the 13th regiment of light infantry, and of an equal number of the 22d light; the greater part of the latter were novices.

"The barracks of the 22d were in favorable hygienic condition, well aired, sufficiently ventilated, without crowding in the chambers; the food of the soldiers was of good quality and abundant. There was a ration of wine. The discipline was mild.

"It is a curious fact to note relative to the epidemic of St. Etienne, while the 22d has had 107 men attacked with cerebro-spinal menin-

* New England Journal of Medicine and Surgery, vol. ii.

† *Mém. de l'Acad. de Med.*, t. x.

gitis, and has lost thirty of them; it was when this regiment presented no new cases that the turn of the 13th regiment came, which has had only five sick, of whom two have died; and the dragoons had only one case, which was fatal. What is otherwise remarkable is, that the barracks where were lodged these two last corps of the garrison of St. Etienne were far from offering hygienic conditions as favorable as those where the 22d was lodged.*

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JUNE 25th.—*Paralysis following Carbuncle, accompanied by extraordinary Nervous Phenomena.*—Dr. COTTING reported the case.

Rev. Dr. B., aged 70 years: an unusually vigorous man, not having had a day's sickness for more than forty years. In March last, had a large, painful swelling over lower part of spine, which he supposed to be "only a boil." Continued to go out, though with much effort, till March 27th.

First seen, professionally, April 10th. Found a large, sloughing carbuncle over coccyx and extending upwards between nates, eight inches or more in diameter. Parts around greatly inflamed and swollen. Large sloughs protruded through several irregular openings—foul and jagged. Had been unable to sit, lie, or even stand for any considerable length of time. Slept, if at all, on his knees on the floor, resting arms in a chair. Walked from room to room without much difficulty. Could occasionally get a comfortable position upon a sofa.

In a few days the sloughs came away, and the wound began to granulate. By the 1st of May the cavity, originally large enough to put two hen's eggs in, end to end, had nearly filled up. On the 7th of May he walked out, unadvisedly, half a mile or more. A few days after this, say about the 15th of May, he began to complain of unusual feelings in toes and tips of fingers, accompanied with slight pricking sensations. Felt uncertain whether he could hold his cup or knife, until he tried and found it possible. This state of things gradually increased until the 1st of June, when a most singular phenomenon occurred. Whenever his eyes were turned away, his hands seemed to him to have become immensely enlarged, so that the fingers were, according to his sensations, as large as one's arms. On looking at his hands he saw that they were of the natural size. He made frequent examinations to satisfy himself that his sight was not at fault. He reasoned much and often, for his mind was as clear as in health, on the cause of the great difference between his sensations and the fact which his vision proved to him.

His grip, at this time, was firm, but he felt another's hand to be in his own "as big as a football." Walking was becoming difficult, the

* Mem. de l'Acad. de Med., t. xvi.

feet feeling clumsy, and imperfectly obeying the will. If the legs were crossed in bed, he became unable to change their position without some aid.

The wound was completely filled up—entirely superficial; about two inches in diameter; healing kindly. Pulse and respirations natural. Dejections began to be retarded, though generally easily hastened, as in health, by chewing a little rhubarb-root. Appetite fair; amount taken quite considerable. No inconvenience from food. This state of things continued without much change, except the gradual and more perceptible paralytic condition, until about—

13th of June, when he said that the size of his fingers had decreased, but each finger had the sensation of being covered on the inner surface with strips of thick sole leather—that he had a pad on each side of the nates, not painful or sore, but very uncomfortable to him when he was placed in a sitting posture on the side of his bed for his meals.

Dejections produced by injection, imperfect, prolonged—not unknown to him, but air, liquid, or solid, he could not tell nor restrain.

June 15th.—Pulse 85. Breathing easy and quiet. Burning in arms, sometimes. “Fingers $1\frac{1}{2}$ times too large.” One person’s hand feels like burning iron, another’s like a lump of ice. On compressing the wrist, his hand felt, he said, cold as ice; on removing the compression, like a firebrand. Perspired generally yesterday, but not to-day. Occasionally as if “in a reeking sweat,” when, in fact, the skin is perfectly dry, though somewhat hot. “A week since could roll from bed to sofa, but now cannot roll at all.” In fact, cannot turn himself or move his limbs.

June 16th.—His “arms are his babies”; frequently loses them. Hunts after his right hand with another “*imaginary arm and hand*,” set on right shoulder at right angles with the body. Hands of all sizes. (The large fingers and patches nearly gone.) This third arm perfect, and constantly put to find and secure the lost one. Feet have boot-heels upon them, which are in the way and troublesome. Feet not uneasy, “apparently dead.” “Hands on fire half the time.” Pulse 83. Tongue losing perceptibly the coat which has generally covered it, and looking more healthy. “Taken considerable food since yesterday.”

June 18th.—Has an imaginary *hand*, through which all things must be done: lost imaginary arm. Intellect good and clear. Pulse 85, pretty full. Night very tedious, restless; constant desire to change; difficult to get any position without pain. Large size of hands gone; “fingers rather bungling”; at times painful. Wishes legs “unlocked”; legs look natural; feel touch “in nearly every place, but rather different way from health.” When rubbed, “feels fine prickling.” Slept one hour this A.M., which is longer time than of any continuous nap in night. Wound only one fourth of an inch in diameter; parts around quite normal; no tenderness over part, nor along the spine (never has been any). Respiration beginning to be restricted, and to require effort of will to raise the chest. Afraid to sleep, lest he should choke or suffocate; easily reassured; 25 per minute.

June 20th.—Large, spontaneous dejection, with strong pain in bowels, low down: “old way deadened”; “new way painful in preparation.” “No pain in sore or near it.” Dejection naturally effected, except a jerk occasionally at moment of expulsion. Could not

distinguish passage of air, fluid, or solid, but knew when it took place. The lost hand seems to be on the floor—constantly getting away. Pulse 90. Respirations 25 to 30; not easy to count them, the double action of the diaphragm and shoulders not following each other regularly.

Food—"a good deal to-day." The following account will serve for this and other days generally. *Breakfast*—Coffee, two cups; beef-steak juice, of piece as large as the hand: soft toast, centres of two slices; Graham bread, one slice. *Lunch*—Two eggs, beaten in three teaspoonsful of whiskey. *Dinner*—Coffee-cupful of good, rich beef-tea; toast. *Supper*—Black tea; one toast; one glass of jelly (gelatine). Jelly through night, at intervals, "considerable"; sometimes whiskey: from time to time Port and water.

June 21st.—"Great pain at times in new passage." Constant operations from bowels; generally semi-solid; pretty large amount in all. Respirations more from diaphragm and less from chest; less uniform. With regard to limbs, says the "illusions are wonderful." Head clear; eyes bright; pupil obeys the light; no pain or other disturbance in head.

9, P.M.—"Feels better." Breathing more by jerks, though not oppressively so to him. Pulse 90-95. Food less to-day. Dejection: continue; conscious of them, but cannot control them. "Owes his better feelings to the dejections." Says, "you are not touching me, are you? that's not me!" Talked about his third hand all day; continually losing it—"cheated and cheated" about it.

June 22d.—Respirations 24. Pulse 80. Easy. Slept in night, several times, at some length. Many partial dejections in night; quantity large, quite solid, and quite natural. "Havn't had anything to do with third hand." Language not quite so coherent as heretofore. "Would Dr. advise old arms? Think of restoring them? if so, that's good! Take good care—not to multiply, but to invigorate"—and similar expressions.

June 22d, midnight.—Sleeps, and wakes with great anxiety lest he may suffocate. At one time slept more than an hour, but woke in great agitation, and sense of suffocation. No great pain. Pulse 105. Respirations 26.

June 23d.—Quieter. Pulse 100. Great weariness from one position. "Puzzled about his limbs." "Are they worth keeping with view to restore them?" "Take those things away at end of table" (meaning his legs). Invented shirts for artificial limbs (in his reverie). Has himself artificial limbs now on. Reasons on these illusions.

June 24th.—Respiration 36, mostly diaphragmatic, difficult. Great anxiety about suffocation. "Fears if he lies down he cannot get up" (now semi-realized). Pulse 115, pretty full. Purplish, leaden hue to skin. Sinking. Conscious. Asks for reading, &c. &c. Died, very quietly, at 2½, P.M.

It will be observed, in reviewing this remarkable case, that the affection of the nerves began as the carbuncular cavity began to close up, and came to its culmination when the sore was nearly or quite healed. The same thing has been observed of neuralgia following the closure of gun-shot wounds—the disturbance being apparently due to the contraction in healing involving the adjacent nerves; the distant affection arising from reflex action, or unknown influences. In the case

we have given the spine was evidently the seat of the subsequent disorders. The *post-mortem* appearances indicated a loss of action in the cord, the whole column presenting a diminished or shrivelled appearance quite consistent with such a theory. Nothing abnormal was found at the autopsy. The spinal cord was examined by Dr. Robt. T. EDES, who has furnished the following report:—

“I examined quite a number of transverse sections from various parts of the cord, paying especial attention, of course, to the cervical region, and found nothing which could in any way account for the symptoms described to me. The central canal had become a mass of cells throughout the whole length of the cord in an equal degree, and could, I think, at the utmost, indicate no more than the effects of old age. I do not think there was anything pathological about the portion of cord which I had, being the whole from, I should say, the second or third cervical vertebra down. The cord was hardened in chromic acid, and, after coloring, made transparent with turpentine.”

It is worthy of notice that the organs of organic life were not affected.

But the most remarkable circumstances of the case were in the extraordinary abnormal *sensations*, and the power the patient had of correcting these sensations by vision and his clear intellect. These abnormal, *unreal* sensations were as vivid and as clear as any the patient ever had in his life. Had he not been able to *see* his hands, no assertion of others, or argument, or reason would have ever convinced him that they had not the size and changes he felt in them.

May not the phenomena developed in this case serve to explain many of those complaints of so-called “nervous” persons, which seem to others purely imaginary? Especially so in those cases where the sensations are referred to internal organs, or parts out of sight; and which are judged to be fictitious because they give rise to no sufficiently grave symptoms to alarm the attendant.

JULY 9th.—*Effects of Pistol-shot.*—Dr. J. WYMAN exhibited a cranium, showing the effect of a pistol-ball fired at the distance of fifteen feet at a dissecting-room subject, of which the integuments had not been removed. The ball, a buck-shot weighing forty-six grains, struck just below the left parietal eminence, making a round opening 0·4 inch in diameter; from this radiated four fractures—one directed downwards to the mastoid process and thence to the foramen magnum; one upwards to the sagittal suture, which it followed to the occiput, and extended a short distance along the right lambdoidal suture; the third ended in the coronal suture, and the fourth extended as far forwards as the left frontal eminence, and then turning back, detached a piece of bone as large as the palm of the hand, which was partially lifted from its place. From the left frontal eminence, and connected with the preceding fracture, diverged two other fractures, one downwards and backwards to the left mastoid process, through the left auditory opening into the foramen lacerum; the second, across the forehead and right temporal fossa into the auditory foramen, and thence into the foramen lacerum. The basilar process was broken across just behind the cella turcica: thus the whole cranium was divided into two portions, which readily separated after maceration.

The above statement shows a much more extensive injury than would be deemed possible from so small a projectile.

Aug. 27th.—Removal of entire Ulna.—Specimen shown by Dr. HODGES.

A boy, æt. 17, entered the Massachusetts General Hospital July 8th, 1866. Six weeks previously, without known cause, while working on a farm, as he had been many months, was seized with severe pain in his arm, followed by swelling. This was deemed phlegmonous erysipelas by his physician, who made incisions and evacuated a quantity of pus, which was followed by improvement, but fistulous openings remained, and through these dead bone was reached by a probe. On enlarging one of these near the elbow, to give a freer vent to the discharge, the whole upper articulating extremity of the ulna was found loose, and was removed; and by an incision carried down the arm, the entire shaft and the lower articulating extremity were also removed, in a necrosed state. The new bone round the old was of so recent formation as to permit being cut by the knife, and allowed the sequestrum to be drawn out without force. At the present time, Aug. 26th, the wound has nearly healed, and there is extensive development of new bone. Neither the elbow nor radial articulation have shown any disposition to inflame, and very good motion already exists. The general health, which had been much impaired by two or three years' service in the army, is greatly improved. It is probable that the duties of a cavalryman, which he performed, were too much for so youthful a subject, and may perhaps have been the cause of his affliction.

Aug. 27th.—Fracture of the Skull from a Slung-shot; Trephining; Recovery.—Dr. HODGES showed the specimen.

A healthy Irishman, æt. 21, was struck by a slung-shot on the 4th of May. He was admitted to the Massachusetts General Hospital on the 7th. On admission, his pulse was 60. His pupils were contracted: there were deafness, stupidity, inability to put out the tongue, and miscalling of words. On the 11th he had a convulsion, which was repeated on the 12th, when, on consultation, it was decided to trephine.

The fracture was in the temporal region, beneath the temporal muscle, the aponeurosis as well as the muscular fibres of which were much lacerated. The bone was depressed in a perfectly regular concavity, such as could only have been made by a spherical missile, outside of which there was no radiation of the lines of fracture, and within which there was much comminution. The internal table was broken to a greater superficial extent than the outer, and the dura mater was ruptured, there being a rent three fourths of an inch in length, from which a lacerated meningeal artery bled to an extent requiring ligature. The pulse, which at the beginning of the operation was 48, rose to 135. The pupils, which had been sluggish, contracted and dilated promptly as soon as the compression was removed. The recovery was rapid, and on the 21st of June he was discharged from the Hospital, and on the 18th of July the patient resumed his work.

Sept. 10th.—Calculus in a Female Bladder; Removal per Urethram.—Case reported by Dr. HODGES.

The patient was an Irishwoman, æt. 34, married, mother of two children. She had lived in Milford, Mass., for several years, ever since she left the old country. One year ago, without any previous renal affection or colic, one month before confinement, she passed a calculus from her urethra, the size of a large pea. At that time she

had had no vesical symptoms or difficulty in micturition, nor did she have any subsequently, until about four months ago, when she began to have frequent desire, with momentary inability, to pass her water, and pain in the bladder, aggravated by riding or exercise. At the time of her entrance to the Massachusetts General Hospital, the catheter detected a stone, and on further examination, under ether, it was found that, by the use of but little force, the urethra could be dilated so as to permit of the entrance of the fore-finger and exploration of the bladder therewith. By the aid of the finger, a calculus was removed *per urethram*, weighing 34 grains, and measuring $1\frac{1}{16}$ inches in its longest diameter and $\frac{3}{4}$ of an inch in its shortest. The stone was triangular in shape, presenting irregular facets, formed by a second stone, which was crushed in the attempt to measure its size by the lithotrite; of this a small lenticular nucleus, three eighths of an inch in diameter, and weighing six grains, remains. The day after the operation, the patient expressed herself as greatly relieved in all her symptoms, and as holding and passing her water with perfect ease and comfort. She has since done uninterruptedly well, and her improved general condition and appearance are as noticeable as the absence of any consequences of the operation.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 11, 1866.

THE INCONSISTENCY OF THE PRESS.

WE called attention not long ago to the reformation of the public press in England, then in progress, in relation to the publication of the notice of quacks and their remedies. The movement, which extended to most of the influential Journals in the United Kingdom, was well called the purification of the press, and we hoped that a similar spirit might be shown in America, but, so far as we know, the example was adopted by only one leading newspaper in the country. How entirely inconsistent with the standard of moral rectitude they profess such a course is, none can be more conscious than the proprietors and publishers of our daily newspapers, and religious and literary journals. Zealous as most of them are in exposing the schemes of sharpers in their attempts upon the purses of the community, in publishing the names of those suspected of fraud, and in recommending measures necessary for the preservation of public health, they do not hesitate to lend the support of their covers and columns to the interests of those who are notoriously engaged in deceiving, impoverishing and tampering with the physical well-being of the people. They would refuse to publish the advertisement of an attorney who was known to be capable of false practices in the law, or of a company organized to issue fraudulent certificates, but what publication denies a place in its pages to the notices of charlatans of our profession, and remedies which betray their true character in every line, except they be grossly indecent? A leader in one column on the physical deteriora-

tion of the race and the decrease of the native element in our population will point to the prevalence and evil effects of criminal abortion, or a severe editorial on spiritualism will expose its follies and expatiate upon its injury to the mental condition of the people, while in another column we may read the advertisement of means and persons employed to produce the former, and of those who unfold spirit power and exercise clairvoyant faculties for amusement, business or healing.

Editors and publishers cannot fall back upon the convenient theory of irresponsibility as to advertisements, for they know too well that without this means of reaching the public, the whole business of quacks and their remedies would fall to the ground, and that, for example, if 30,000 bottles of one medicine have been sold in the last three months, and another whole dwelling-house has been occupied for the purposes of the discoverer of the newest popular system of curing diseases, as two of our local and most respectable daily papers have lately informed their readers, it is in consequence of just such extra notices outside their advertising columns as these. They are parties in the transaction and share the profits of this deception practised upon the ignorance and credulousness of the masses they profess to educate and protect.

In this connection we would refer to our recent article on the advertisements of physicians, for the purpose of mentioning the expression of approval which its views have elicited from the medical journals of most of our large cities, and to the fact that two of the leading French and English journals have lately alluded to the reprehensible character of this custom among Boston physicians. We trust that the practice will soon be seen in its true light by every member of the profession amongst us.

TWINS IN AFRICA.

THE following letter, from Dr. Calloway, the Local Secretary of the Society at Natal, is published in the *London Anthropological Review* :—

“SPRING VALE, NATAL, January 26, 1866.

“DEAR SIR.—I notice in Blake’s translation of Broca’s work *On Hybridity in the Genus Homo*, p. 53, an allusion to the Australian custom of killing the weakest of two new-born twins, which the author finds it difficult to credit, thinking it ‘improbable and inexplicable.’ At the same time he supposes that, in the precariousness of savage life, and the uncertain supply of nourishment, a mother who would not find it easy to rear one child, may resign herself to sacrificing one of twins to save the other.

“It is rather remarkable when infanticide has been so common a crime among the most highly civilized nations, that M. Broca should imagine that savages would feel any difficulty in committing such murders; and advance the opinion that if they killed either new-born mulattoes for one cause, or one of twins for another, it would evidence so great a want of maternal love on the part of the females, as would warrant us in denying them the right to be regarded as belonging to the human race. But many things which appear absolutely improbable, and even impossible from a European standing point, are found, on a more intimate acquaintance with savage races, to be common, every-day occurrences; and what we should regard as a crime, the savage often considers as a necessity, and even as a virtue.

"It is impossible to determine theoretically what shall be the result, in any particular case, of a contest between instincts. An instinct may be undeveloped, dormant, or suppressed by a stronger instinct; it would be a great mistake, therefore, to conclude from the absence of manifestation, that it does not exist. The love of offspring is a very strong instinct among the natives of South Africa—stronger, perhaps, than any other, but the love of life. Yet parents would, under certain circumstances, leave their offspring to perish, or even kill their infants, to ensure their own safety, or even the probability of their escaping disease or death.

"But my object in writing is not to discuss a general question of this kind; but to say that the custom of killing one of twins exists among certain tribes and families of Kafirs; and to explain, for the information of members of the Anthropological Society, the native reasons for the custom, which will be found to be a strange superstition, having for its object the preservation of the life of the parents, especially of the father.

"Among some tribes the birth of twins is of rare occurrence; among others not unusual. With the latter the twins are allowed to grow up; with the former it is regarded as a prodigy, and one of the twins is killed. The two children are carefully inspected, and the most delicate one has a clod of earth placed in its mouth, and is thus subjected to a slow death by suffocation. When dead it is placed near the doorway of the hut, and the *ikgena*, a dwarf aloe, is planted over the grave.

"The reason for this procedure is said to be that, if both were allowed to grow up, they would cause the death of one of their parents; or, as they express it, 'If both are allowed to live, there is some one who will leave them'; that is, one of the parents will die, and leave them orphans. The injurious influence supposed to be exerted by the twins on the father or mother may not manifest itself for many years, not till puberty, or not even till they are twenty years old. The woman who bears them, if both are allowed to live, is said rapidly to become old and incapable of bearing children.

"If the influence does not kill either of the parents, the twins will kill each other by inducing disease in each other. Such is the superstition, and it is evident that all twins can be readily made to fulfil the prophecies uttered at their birth by old crones; for any disease arising in the parents, or in the twins themselves, will be ever regarded as having for its cause the survival of both the twins.

"It sometimes happens that a man, more sensible than the rest, or having the instinct of child-love more developed, objects to have either of his children killed. The old men and women of the village at once gather round him, and recall numerous instances in which fatal consequences resulted from allowing both children to live; until at length fear overcomes his good sense and paternal love, and the child is sacrificed. In one instance a man, in whose family twin-births had been common, married the woman of a tribe in which they were unusual. In due course she gave birth to twins. Her friends assembled, and said it was necessary to kill one to ward off ill luck. The man objected, that to have twins was a natural thing among his people, and would not allow either child to be killed. When the twins were about fourteen years old, the mother became delicate; of

course her friends attributed her illness to the obstinacy of the husband, and would not listen to the argument, that had one been killed she would have suffered from the same disease notwithstanding.

"The murdered child is buried near the doorway, it is said, for the sake of the survivor. It is supposed that the surviving infant will miss the companion to which it has been so long accustomed during intra-uterine life, and a soothing influence is thought to issue from the grave. When the child cries, it is supposed to be crying and pining for its companion, and it is taken to the grave, and carried backwards and forwards over it till it is quiet. It is also daily washed on the grave. This is why the grave is made so near the hut, as it would be inconvenient to go to the usual distance of graves, every time the child cries, to get it quieted by the influence of its fellow.

"The aloe is regarded in some way as the living representative of the dead infant; its spirit or shade is supposed to be in it, or to be hovering about it. When it is planted, its spines are carefully cut away that the survivor may play about it, and drag himself up by it, and make himself strong, as he would have done with his fellow-twin had he been permitted to live.

"A more strange, far-fetched, and inconsistent superstition can scarcely be conceived. You will see that scarcity of food, the difficulty of nourishing two children, the drag which suckling two infants would be on the mother's health, are questions which do not suggest themselves. But simply an imaginary influence, which it is feared will produce ill luck or death. The mother of the twins has little to do with the murder; it is done for her by the crones of the village. But she is aware of it and accessory, and not merely resigned to it.

"If a child is born during a famine, it is sometimes killed in the same way—by placing a clod of earth in its mouth. In this instance the child is sacrificed with the express view of saving the mother, and preventing her strength from being exhausted by suckling, when her own system is depressed by want. Of course these customs no longer exist where the British Government exerts its influence.

"There is a similar superstition as regards inheritance. If the father dies, leaving numerous large oxen, it is supposed necessary that the son should slaughter them; if not, it is feared they will cause his death.

I am, dear Sir, yours truly,

HENRY CALLOWAY, M.D., L.C.P.L."

(From the Californian.)

TO THE PLIOCENE SKULL.

A GEOLOGICAL ADDRESS.

A HUMAN skull has been found in California, in the pliocene formation. This skull is the remnant not only of the earliest pioneer of this State, but the oldest known human being.* * * * * The skull was found in a shaft one hundred and fifty feet deep, two miles from Angel's, in Calaveras County, by a miner named James Matson, who gave it to Mr. Scribner, a merchant, and he gave it to Dr. Jones, who sent it to the State Geological Survey. If these statements are reliable, it is the skull of a man who lived before Mount Shasta, the mountains of Butte County, and all the volcanic peaks of California were raised above the surface of the globe. The published volume of the

State Survey on the Geology of California states that man existed here contemporaneously with the mastodon, but this fossil proves that he was here before the mastodon was known to exist.—*Daily Paper*.

Speak, O man, less recent! Fragmentary fossil!
Primal pioneer of pliocene formation,
Hid in lowest drifts below the earliest stratum
Of volcanic tufa!

Older than the beasts, the oldest Palæotherium;
Older than the trees, the oldest Cryptogamia;
Older than the hills, those infantile eruptions
Of earth's epidermis!

Eo—Mio—Plio—whatsoever the "cene" was
That those vacant sockets filled with awe and wonder—
Whether shores Devonian or Silurian beaches—
Tell us thy strange story!

Or has the Professor slightly antedated
By some thousand years thy advent on this planet,
Giving thee an air that's somewhat better fitted
For cold-blooded creatures?

Wert thou the true spectator of that mighty forest
When above thy head the stately Sigillaria
Reared its columned trunks in that remote and distant
Carboniferous epoch?

Tell us of that scene—the dim and watery woodland
Songless, silent, hushed, with never bird or insect,
Veiled with spreading fronds and screened with tall club-mosses,
Lycopodiacea—

When beside thee walked the solemn Plesiosaurus,
And around thee crept the festive Ichthyosaurus,
While from time to time above thee flew and circled
Cheerful Pterodactyls.

Tell us of thy food—those half marine refectations,
Crimoids on the shell and Brachipods *au naturel*—
Cuttle-fish to which the *oeuvre* of Victor Hugo
Seems a periwinkle.

Speak, thou awful vestige of the Earth's creation—
Solitary fragment of remains organic!
Tell the wondrous secrets of thy past existence—
Speak! thou oldest primate!

Even as I gazed a thrill of the maxilla
And a lateral movement of the condyloid process,
With post-pliocene sounds of healthy mastication
Ground the teeth together.

And, from that imperfect dental exhibition,
Stained with expressed juices of the weed Nicotian,
Came these hollow accents, blent with soft murmurs
Of expectoration:—

"Which my name is Bowers, and my crust was busted
Falling down a shaft, in Calaveras County,
But I'd take it kindly if you'd send the pieces
Home to old Missouri!"

BRET.

Delegates to Medical Societies.—At the late meeting of the Councilors of the Massachusetts Medical Society the following gentlemen were appointed:—

MAINE.—Dr. D. H. Storer, Boston; Dr. B. S. Shaw, Boston.

NEW HAMPSHIRE.—Dr. J. Ayer, Boston; Dr. J. B. Forsyth, Chelsea.

VERMONT.—Dr. G. Hayward, Boston; Dr. A. Millett, Bridgewater;
Dr. Thaddeus Phelps, Attleboro'.

RHODE ISLAND.—Dr. S. Durkee, Boston; Dr. J. Sargent, Worcester.

CONNECTICUT.—Dr. B. E. Cotting, Roxbury; Dr. T. H. Gage, Worcester.

NEW YORK.—Dr. J. L. Miller, Pittsfield; Dr. C. C. Holmes, Milton; Dr. W. G. Wheeler, Chelsea.

NEW JERSEY.—Dr. H. I. Bowditch, Boston; Dr. E. Jarvis, Dorchester.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 6th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	44	31	75
Ave. mortality of corresponding weeks for ten years, 1855-1865	48.3	42.5	90.8
Average corrected to increased population	00	00	99.77
Death of persons above 90	1	1	2

CORRECTION.—In the report of Dr. Cotting's case of "Abdominal Cancer, accompanied by Apoplexy of the Medulla Oblongata," printed in our issue of Sept. 27th, page 187, the following paragraph was inadvertently omitted in the account of the autopsy:—

About midway in the medulla oblongata, its precise locality not noted, was a small, red blood-clot, about one eighth of an inch in diameter, apparently rather recent. Brain normal.

JOURNALS RECEIVED.—Medical Record, Nos. 14 and 15.—New York Medical Journal for August and September.—Medical and Surgical Reporter, Nos. 10-13.—Medical News and Library for September.—Chicago Medical Examiner for August and September.—Chicago Medical Journal for August, September and October.—Cincinnati Lancet and Observer for August.—Medical Reporter, Nos. 13 and 14.—Nashville Journal of Medicine and Surgery for August and September.—Atlanta Medical Journal for September.—Richmond Medical Journal for August and September.—New Orleans Medical and Surgical Journal for September.—Southern Journal of the Medical Sciences for August.—Pacific Medical and Surgical Journal for August.—L'Union Médicale, Nos. 101-112.—Journal de Médecine de Bordeaux for September.—London Lancet (reprint) for September.—Detroit Review of Medicine and Pharmacy for August and September.—Journal of Materia Medica for October.—Chemist and Druggist, No. 85.—Dental Cosmos for September and October.—Dental Register for August and September.—Hall's Journal of Health for October.—The Herald of Health and Journal of Physical Culture for October.—Phrenological Journal for October.

BOOKS AND PAMPHLETS RECEIVED.—A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.B., A.M., M.D., Professor of the Principles of Surgery, Military Surgery and Hygiene, and of Fractures and Dislocations, in Bellevue Hospital Medical College, &c. &c. Third Edition, revised and improved. Illustrated with two hundred and ninety-four Woodcuts. Philadelphia: Henry C. Lea. 1866.—A Practical Treatise on the Physical Exploration of the Chest, and the Diagnosis of Diseases affecting the Respiratory Organs. By Austin Flint, M.D., Professor of the Principles and Practice of Medicine in Bellevue Hospital Medical College, &c. &c. Second Edition, revised. Philadelphia: Henry C. Lea. 1866.—A Treatise on Vesico-Vaginal Fistula. By M. Schuppert, M.D., Surgeon of the Orthopaedic Institute at New Orleans, La.—On Provision for the Insane Poor of the State of New York, and the adaptation of the "Asylum and Cottage Plan" to their wants, as illustrated by the History of the Colony of Fitz James at Clermont, France. By Charles A. Lee, M.D.

DIED.—At Camp of 116th U. S. C. T., White's Ranch, Texas, Aug. 22th, of gastro-enteritis, Benjamin Hobbs, Surgeon U. S. C. T., aged 25 years 6 months and 27 days.

DEATHS IN BOSTON for the week ending Saturday noon, Oct. 6th, 78. Males, 44—Females, 31. Apoplexy, 3—congestion of the brain, 2—disease of the brain, 3—cancer, 2—cholera, 3—cholera infantum, 5—consumption, 16—convulsions, 1—croup, 2—cynanche tonsillaris, 1—diarrhoea, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 4—drowned, 1—dysentery, 3—typhoid fever, 2—gastritis, 1—disease of the heart, 2—infantile disease, 2—intemperance, 1—disease of the kidneys, 2—disease of the liver, 2—inflammation of the lungs, 3—marasmus, 4—old age, 1—paralysis, 1—scrofula, 1—suicide, 1—syphilis, 1—teething, 1—tumor, 1—unknown, 2.

Under 5 years of age, 31—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and 60 years, 10—above 60 years, 11. Born in the United States, 50—Ireland, 20—other places, 8.

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No. 12.

LARYNGEAL GROWTHS.

[Communicated for the Boston Medical and Surgical Journal.]

By HENRY K. OLIVER, M.D.

THE subject of growths within the larynx, which formerly, from the difficulty attending the diagnosis and treatment, could not receive the attention from medical practitioners which it was acknowledged eminently belonged to it, has, in later years, become one of the most interesting as it is one of the most important branches in the domains of pathology and surgery. Especially is this true of the last ten years, during which the laryngeal mirror has proved to be an eye to the blind in the investigation of laryngeal affections. Before the days of Ehrmann, with whom, in 1844, began a new epoch in the treatment of these growths, such was the apparent rarity of adventitious products in the larynx, that their subsequent frequency created general surprise, and this surprise has in no wise diminished since the revelations made by the laryngoscope. It is therefore not to be wondered at that some persons are inclined to harbor and to express a doubt that these growths, now so frequently discovered, are really new formations. Czermak* says:—"With the rapidly spreading use of the laryngeal mirror, the cases of new formations in the larynx multiplied to such a degree that some of the leading authorities could not repress a fear that 'laryngoscopy at present overrates the frequency of new formations in the larynx, and describes every swelling that exists there as a new formation.'" This doubt, natural enough under the circumstances, is, however, speedily yielding to the corroborative testimony of the many observers engaged in the practice of laryngoscopy. The fact already alluded to must be borne in mind in the consideration of this subject, namely, that, in former years, a growth which produced no more trouble than hoarseness, would not be diagnosticated during life, and would pro-

* Medical Times and Gazette (London), June 7, 1862.

bably not be discovered in case of death from any cause, the single symptom mentioned not inviting special *post-mortem* investigation. Even in case of the largest tumors, the difficulty attending diagnosis was very great.* No author laid down any pathognomonic symptom. Cough, hoarseness, dyspnoea and loss of voice are characteristic of various changes in the larynx, either structural or functional, as well as of adventitious growths. The peculiar "valvular cluck," spoken of occasionally, is but rarely heard, and one of the most important symptoms, namely, the paroxysmal character of the cough and dyspnoea, which is so often noticed in these cases, is pathognomonic of other affections, especially of irritation of the recurrent laryngeal nerve. Dr. Horace Green says :†—"The diagnosis of these excrescences is extremely difficult; the symptoms developed by their presence simulate those frequently observed in asthma, phthisis, œdema of the glottis, thickening of the mucous membrane of the larynx and ulceration of the vocal ligaments." The only certain sign, if I may except the few cases in which the tumor was so large as to allow of the exposure of its base to view in the pharynx, or in which it could be felt by exploration with the finger, was the expectoration of particles of the growth; and this, it may be surmised, occurred but rarely.

Another circumstance which contributed to the former apparent rarity of these morbid products, is the probability that they sometimes disappear spontaneously, or with no more aid than would be afforded in the ordinary treatment of inflammatory conditions of the laryngeal mucous membrane. Störk exhibited, before the Medical Society in Vienna,‡ a patient in whom he had previously demonstrated the existence of epithelial vegetations, covering the vocal cords to such an extent as to interfere seriously with respiration. Powdered alum had been applied from time to time without any appreciable effect; at length the patient was allowed to go without treatment for two months, at the end of which period laryngoscopic examination showed that the disease had entirely disappeared. Dr. Gibbs§ mentions a case under his care, in which the pedicle of an elongated polypus became in some way strangulated, permitting the spontaneous expulsion of the growth.

I have had the opportunity of seeing two cases in which incipient growths disappeared without treatment specially directed to their removal.

Notwithstanding the former rarity of laryngeal tumors, there seems to have been among physicians who had paid particular attention to diseases of the larynx, a conviction that new formations existed more often than was generally supposed, and the remarks of Dr. Green

* Out of the 80 cases of laryngeal tumors collected by Lewin, only three were diagnosed during life.

† The Surgical Treatment of Polypi of the Larynx.

‡ Wiener Wochenblatt, 1863.

§ Throat and Windpipe, p. 146.

seem now almost prophetic. Dr. G. says :*—"The author does not hesitate to express the opinion, and leave it to future experience to confirm or invalidate, that foreign growths have occurred in the opening of the air-passages in many instances when their presence was neither suspected nor discovered; and that if the attention of the profession should by any means be directed to this subject, it will be found that the existence of polypus and other excrescences in these passages is an occurrence taking place much more frequently than has been supposed by medical practitioners."

Having within the last few years met with a number of cases of these new formations, I propose bringing them to the notice of the profession; but, preliminary thereto, I trust a short account of the appearances, structure, mode of origin, &c. of laryngeal growths in general will not be devoid of interest. At a subsequent time I intend bringing up the subject of their treatment.

Rokitansky divides adventitious formations occurring in the larynx into five kinds :—

1st. The epithelial formations in the form of roundish, cauliflower, or wart-like growths, varying from the size of a hemp-seed to that of a hazel nut, or even larger; sometimes cancerous and sometimes non-malignant.

2d. The cellular or mucous polypi and condylomatous excrescences, occurring upon, or in immediate proximity with an ulcerated base, or when there are no existing ulcerations, forming hard or spongy purple vegetations, varying from the size of a pin's head to that of a hemp-seed or pea.

3d. Erectile tissue, occurring in the form of broad-based, soft vegetations, capable of being rendered turgid, or as the development of the free extremities of mucous polypi.

4th. Fibrous tumors, taking their origin in the submucous areola tissue, and having a nature common with the fibrous tumors not infrequent in the pharynx.

5th. Cancer, in the form of larger or smaller roundish protuberances into the laryngeal cavity.

To these varieties may be added one or two others, namely, cystic, fibro-plastic, fatty and cartilaginous tumors. It will not be out of place to mention, also, the occasional appearance of ordinary cysts, inasmuch as they produce marked interference with the voice and with respiration, and require surgical aid for their removal.

Of all the above varieties by far the most common is the first. With the various authorities they go under the name of warty growths, vegetations, cauliflower excrescences, &c. Rokitansky describes their formation as follows :—

"In chronic catarrhal inflammation, the mucous membrane, from the swelling and increase in size of the papillæ and follicles, may

* *Op. cit.*

become warty and rugged, and even duplicatures and prolongations may be formed upon it. These two last-mentioned inequalities are permanent immovable folds of the membrane; they constitute what is called the mucous or cellular polypus, or the vesicular polypus. These polypi are processes of the mucous membrane, of various thickness and length. In shape they are spheroidal or elongated, or like nine-pins or cylinders, and their free extremity is thick and blunted. The mucous membrane and the tissue beneath it becoming hypertrophied at particular round, circumscribed spots, form a somewhat flattened convex tumor, and progressively change into a honeycombed cellular tissue. Little by little the tumor drops into the cavity of the organ, dragging with it the surrounding mucous membrane, by which, as by a comparatively thin and more or less elongated pedicle, it remains attached; the polypus then consists of a cylindrical prolongation of mucous membrane, which contains a cord of submucous tissue, and of a truncated extremity or knob, at which the tissue proceeds to form itself into a honey-combed cluster of vesicles and follicles, and becomes lobulated like a cauliflower." Microscopically, they consist of "exuberant epithelial cells and very delicate vessels, prolonged, as it were, from the mucous membrane, held together by a very scanty, imperceptible intercellular substance, and giving way under very moderate pressure."

As already mentioned, these vegetations or warty growths are much more common than any other variety. In Dr. Gibb's table* of examples of laryngeal growths existing in the museums of London, out of 31 specimens more than two thirds were of this variety, and a search through the works of Mackenzie, Gibb and others, and among the cases reported in the various English and continental medical journals, shows that the proportion is, if anything, rather too small than too large.

The situation of these growths is in the vicinity of the vocal cords, oftener anteriorly than posteriorly, much more often above than below. A favorite seat is at the locality near the anterior insertion of the vocal cords, while they are occasionally seen between the cords posteriorly, on the arytenoid commissure. In number they vary, being single in some cases and very numerous in others. In the specimen from Dr. Gray's case,† which is in my possession, there are three or four large masses of vegetations, and ten or twelve smaller nodules in the interior of the larynx and on the laryngeal face of the epiglottis. On the lingual face of the epiglottis there are ten or twelve other nodules of various sizes, and on the tonsils and back of the tongue at least a dozen more. As regards the subjects of the growths, they are more frequently found in males than females, and no age, if we except extreme old age, seems to be exempt from them. Dr. Gibb says that in the early part of 1862, a female child, aged two

* Throat and Windpipe, p. 128.

† Boston Medical and Surgical Journal, vol. lxxiv. p. 32.

years, was brought to him with stridulous breathing, existing since her birth, and strongly simulating laryngismus. Dr. G. passed his index finger into the larynx and felt several soft growths, attached to the left side of the larynx. The child was afterwards lost sight of. In the table in Dr. Gibb's work, already referred to, out of the 31 cases 13 occurred in children. One specimen in the Museum of St. Bartholomew's Hospital came from a child, age not given, in which the growth is stated to have been congenital. The growth was a warty, tuberculous mass, growing from both sides of the larynx and filling it. In Dr. Cabot's case of laryngotomy for removal of a laryngeal growth,* the subject was a boy of five years of age, who had been hoarse for a year. In Dr. Gray's case, the subject was also a boy of five years of age, who had been hoarse for nine months.

With regard to the origin of these growths there is some difference of opinion, the main points at issue being the influence of syphilitic taint in their production. With regard to the question of malignancy, however, authorities are not so much at variance. These vegetations, indeed, seem generally no more to partake of the character of a cancerous growth than the vegetations on the genital organs which they so much resemble in their appearance and internal structure. The only thing which would suggest malignancy is their tendency to recurrence; but this really only happens when their extirpation has not been complete. When the growth extends over a large surface, its entire extinction is no easy matter. Kœberle, in remarks on a case of laryngotomy performed by him for the removal of a condylomatous tumor filling the larynx,† says that there was no apparent return of the disease after four months, but adds that the affection has almost always reappeared, and that one cannot feel sure of a cure before the lapse of a twelvemonth." When the growth, however, is small, and especially when it is pediculated, its recurrence after extirpation is rare. One has only to glance at the results of operations recorded by laryngoscopists to be assured of this fact.

Except the tendency to recurrence, these growths have nothing in common with malignant disease. They do not ulcerate, nor do cancerous growths manifest themselves in other parts of the body. Lastly, the youth of such a large proportion of the subjects is another argument against malignancy. It is to be remembered, however, that vegetations in the larynx often spring from a cancerous basis. This form has been noticed under the second variety of Rokitsky's classification.

Before leaving this part of the subject, I desire to call attention to a case reported to the Pathological Society of London by Mr. Curling,‡ in which there was an epithelial growth, with carcinomatous ulceration extending to the œsophagus. Mr. C. considered the

* Boston Medical and Surgical Journal, vol. lxxiv., p. 181.

† Gazette des Hôpitaux, 7 Juin, 1866.

‡ London Lancet, January 16, 1863.

disease to have been originally epithelial or warty growths, which had subsequently undergone cancerous degeneration. Dr. Andrew Clarke, an accomplished pathologist and microscopist, showed drawings of the specimen, and expressed himself as agreeing with the view of the case taken by Mr. Curling.

With regard to the syphilitic character of the vegetations, when it is remembered that the most modern syphilographers doubt the specific nature of the vegetations which appear upon the genital organs, it may certainly not be presuming too much to question the specific character of such forms in the larynx. Still, these growths have occurred in the larynx under such circumstances as to cause a reasonable conviction in the minds of many observers that they owed their origin to a syphilitic taint. I have already recorded Rokitsky's opinion in the second variety of his classification. Prof. Gross says:—"Warty excrescences, similar to those of the vulva and penis, are sometimes found in the larynx. These vegetations are usually associated with thickening of the lining membrane of the tube, and are nearly always dependent upon a syphilitic taint of the system"; and Rayer says:—"Numerous cases leave no doubt of the fact that certain excrescences are owing to the syphilitic cachexia, and that they sprout without evident inflammation." However the fact may be, one can hardly help remarking, in looking over the reports of these growths in the works of laryngoscopists and in the records of pathological societies, how seldom the suspicion of syphilis is hinted at in the subject in which they occur. In the cases of Dr. Cabot and Dr. Gray, already referred to, there seemed to be not the slightest reason to suspect a specific origin. Grant that they sometimes spring from an ulcerated surface, it does not follow that we are to consider them as anything more than an accidental formation upon a specific lesion; or grant, again, that they arise as the result of a specific laryngitis, so they arise in inflammation of the laryngeal mucous membrane which is not specific.

With regard to the influence of inflammation of the mucous membrane of the larynx in the production of vegetations, there is little doubt that such a condition may be an exciting cause. Rokitsky refers to it in other parts of his "Pathology" than the one already quoted from. Under the special head of "Chronic Catarrhal Inflammation," he says:—"This gives rise to swelling of the mucous membrane, especially on those parts of the larynx which we have already described as abounding in glands, thus causing glandular hypertrophy, mucous polypi and cauliflower epithelial growths."

Virchow, also, in the second volume of his work on Pathology,* gives a decided opinion as to the influence of local irritation in producing new formations.

Lewin mentions the local irritation of foreign bodies as an occa-

* Vorlesungen über Pathologie.

sional cause of vegetations, and adds that they sometimes follow measles and scarlet fever. In Dr. Gray's case, the child had been given by mistake, or had taken itself, a quantity of water of ammonia, some eight months before laryngeal symptoms came on. Considerable soreness of the throat followed, but the child seemed afterwards not to have been seriously affected. Generally, in the reports of these cases, it will be noticed that the subjects are represented as having been liable to "colds." Dr. Elsberg seems to be confident of the influence of local inflammation in the production of the growths which have come under his observation. Nevertheless, it must be admitted, that it is often difficult to determine whether the laryngeal symptoms in these attacks called "colds" or "croupy attacks" were in all cases the cause or the effect of the new formations. If the growths are sometimes congenital, without any suspicion of syphilitic taint, there can be little doubt that they may arise without any appreciable cause, and in such a case they may be the exciting influences in what may seem to be an ordinary "cold," at a time when they are of too small a size to produce any more serious symptom.

Lastly, tuberculosis has been mentioned as an exciting cause. Andral refers to two examples of polypus of the larynx that he had met with; in both, the subjects of the disease were patients affected with tubercular phthisis. Louis, however, does not speak of having met them in phthisis.

Thus much in reference to the vegetations. With regard to the other kinds of tumor met with in the larynx, there is not much to be said as far as the cause of their appearance is concerned. They arise, as they arise in other parts of the body, without known cause.

The fibrous polypus resembles exactly the polypus of the pharynx, but is comparatively very rare. It generally springs from the ary-epiglottidean fold. Examples are mentioned by Debrou,* and by Trelat†.

The fibro-plastic tumor is also rare. Lewin has, however, collected some half a dozen examples, three of which occurred upon the vocal cords. I have lately removed one of the size of a pea from the vocal cord in a male adult. It was buried deep in the body of the cord, and was exceedingly hard and tough. Under the microscope Dr. Ellis found it to present the appearances common to fibro-plastic tumors elsewhere. I hope soon to publish the case entire. Dr. Mackenzie‡ records the case of a man aged 41 years, from whom he removed, by piecemeal, a polypus of the size of a bean, growing just above the anterior insertion of the vocal cords. According to Dr. Andrew Clark the growth was of a yellowish color and of a horny consistence. On account of their hardness the structure could not be very easily determined. Dr. C., however, considered the case as one of commencing fibro-epithelial growth.

* *Gazette des Hopitaux*, Nov. 7, 1863.

† *The Use of the Laryngoscope*, p. 135.

‡ *Gazette Hebdomadaire*, May 1, 1863.

Cartilaginous tumors are very seldom met with. In the *Dublin Journal* for Sept., 1835, mention is made of a firm osseo-cartilaginous tumor of the size of a walnut, which was connected with the right thyro-arytaenoid ligament and pressed upon the rima glottidis.

Cystic tumors also seem only occasionally to be met with. Dr. Gibb mentions an example occurring in a female aged 38 years. The tumor seemed to be developed from one of the ventricles of the larynx, and was of considerable size, so as to almost completely conceal the glottic aperture. Dr. Gibb represents Meckel as of the opinion that cystic tumors of the larynx are not very uncommon.

Fatty tumors, I think, must be still rarer than the cystic, for although they are mentioned as having occurred in the larynx, I recollect meeting with the record of but a single case.

Before closing the account of these growths it will be important to remark upon the character of certain projections from the mucous membrane of the larynx, which seem to be the product of inflammation, and are probably the incipient form of new formations.

It will be remembered that some of the warty growths have their origin in a hypertrophied condition of the follicles of the mucous membrane. A number of these enlarged follicles coalescing into one mass forms warty tumors of various size, which sometimes become pediculated, but which often are attached by a broad base. A single follicle, however, is sometimes seen to form a little acuminate process, which may shrink up wholly, or in the greater part, when the inflammatory condition of the mucous membrane, to which it owes its origin, subsides. I have met with two or three such instances. Again, there may be considerable prolongations from the mucous membrane which have not the character of any of the new formations commonly met with, but which are, nevertheless, permanently organized tumors, requiring surgical interference. An example of such outgrowths is found in the report of a case occurring at the London Hospital under the care of Dr. Frazer, in the *London Medical Times and Gazette* of March 31, 1866. The patient was a male, 28 years of age, in whom laryngeal symptoms dated back three years. A laryngoscopic examination showed a high degree of congestion of the mucous membrane of the larynx and numerous irregular outgrowths presenting the appearance of excrescences. These outgrowths of thickened mucous membrane projected from both the vocal cords, and from beneath their anterior insertion. Dr. Mackenzie removed several portions of the projecting membrane with the laryngeal forceps. Dr. Frazer remarked that the case seemed to be one of chronic inflammation of the lining membrane of the larynx, which had resulted in the formation of irregular thickened projections of the mucous membrane. These presented the appearance, in the mirror, of warty growths, but as they did not possess the pathological character of epithelial tissue, containing merely the imperfectly organized products of inflammation, Dr. Mackenzie very properly called them false excrescences.

Finally, I may also mention in this connection that I have met with two instances in which growths appeared upon the free edge of the vocal cords, which appeared to be fibrous in their nature, and which were probably organized lymph which had been deposited as the result of inflammatory action. One of these cases I read before a late meeting of the Medical Improvement Society of this city. There was a suspicion of syphilis in this patient.

[To be continued.]

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 222.]

VALLEIX, after mentioning that new recruits were most frequently the victims, says:—"Fatigues to which the young soldiers were not accustomed, exposure to inclemencies of the weather, prolonged exercises, are the causes which, according to all appearances, have determined the appearance of the disease."

Dr. Frothingham, who saw several cases while connected with the Army of the Potomac during the winter of 1861-62, speaks of this cause as follows:—"Here was a large army, living under almost exactly the same circumstances as to food, beds, ventilation, clothing, &c., and within a few miles of space; yet a few cases (enough to indicate some common cause) of an unusual disease occurred in one brigade (as I did not hear of any other cases, I take it for granted there were none). Malarious and continued fever prevailed in all the camps throughout the army. The only circumstance influencing disease in which this brigade differed from others, was in the severity of its labors. Under Gen. Daniel Butterfield, a stern disciplinarian, who always, sick or well, did his own entire duty and would receive no less from his subordinates, the men were drilled to the full extent of their powers—often to exhaustion. I did not at the time recognize this as a cause of the disease in question, but I learn that in the present epidemic in Pennsylvania, the attack generally follows unusual exertion and exposure to cold."*

Thus, in civil life, great fatigue has been mentioned as the cause of the appearance of this disease, and this was likewise noticed by Dr. J. Norcom, of Edenton, N. C., in 1815, who gives as the causes—excessive fatigue and long-continued exposure to cold, violent exercise, sitting up nights, irregularities of living, intemperance of every kind, more especially intoxication; everything that has a tendency to debilitate.†

Here he mentions other influences as coöperating with fatigue and violent exercise; and so in other places there were found influences which seemed to predispose to the disease: badly ventilated residences

* American Medical Times, April 30, 1864.

† Eclectic Repertory, vol. v., 1815.

causing a vitiated atmosphere, unwholesome food, sudden changes in temperature, dampness, &c.

M. Corbin, in regard to the epidemic at Orleans, in 1847-48, says, "The principal cause in our eyes is crowding, which supposes the alteration of the air, combined sometimes, for the soldier, with unhealthy habitation, and often, during the winter, with a temperature too elevated in the guard-houses or in the quarters. The barracks of St. Charles, which has furnished the greatest proportion of sick, is an old building, situated below the level of the ground. The lower story, it is true, is uninhabited; here are cellars which serve for magazines; the first story had been inundated the year before to a very great height; the walls were damp, even so that the water dripped from them." The troops were removed into the upper stories; and then they crowded together, and saving wood by using only one or two rooms, heated those excessively, keeping the doors and windows constantly closed.*

MM. Porral and Raphael consider the cause of the disease at Puy and Vannost was, that the inhabitants became warmed by their labor in the valley, and then ascending the mountains became too suddenly cooled.†

M. Valleix says, "At Rochefort fatigue has not been greater than usual, but it was learned from an extensive examination made on this point, that the convicts were badly clothed, badly shod, and that the place where they passed much of their time was remarkable for its dampness. These are the only circumstances to which can be referred the appearance of the epidemic."

M. Rollet considers as determining causes—cooling after having been heated by the sun, or succeeding to a violent exercise, and vicissitudes of temperature.‡

At Toulon, previous to the outbreak of the epidemic of 1829-30, among the galley slaves, they were confined on board three old hulks. M. Fleury says in regard to the one on which the disease appeared, that it was moored near a dock, where much refuse had accumulated, lying half decomposed, and which was being cleaned out. The thousand convicts quartered in this old hulk were distributed in nearly equal proportion among the three decks, of which the lowest was almost on a level with the water. These decks were sixty feet long, forty-four and a half feet wide, and five and a half feet between. The men lay in four ranks on mattresses of tow eighteen inches wide. The air ports were open during the day, but frequently closed at night. During the night the decks became very filthy, and though cleaned every morning, the planking must have become saturated with excrementitious matters. In addition to this, the upper decks were imperfectly caulked, and allowed the rain to pass through more

* Encyclo. de Sci. Méd., 1848, t. v.

† Report of M. Claubry, in Mem. de l'Acad. de Med., t. xiv.

‡ Mem. de l'Acad. de Med., t. x.

or less freely. The food and clothing seemed to be sufficient for health.

Dr. Savages says of the disease which appeared in New London, Conn., in 1832, "The streets of the low and intemperate were its birth-place, and their dwellings its *cradle*; and upon this class of persons was its fury spent, for theirs was the condition most congenial to its evidence and growth."*

But these causes did not operate everywhere, and many looked upon a malaria as concerned in the production of the complaint. Dr. Latham, who observed the epidemic at the Millbank Penitentiary, thought that malaria was probably one of the causes; and so also Dr. Sanderson, with regard to the disease at Dantzic, during the last year (1865).

By examining the reports of the weather during the prevalence of this disease, we may be able to find some peculiarity in the temperature, the dryness or dampness of the atmosphere, which, with other influences, bears a part in producing it.

It will be remembered that Sydenham mentions the severity of the winter of 1683, exceeding any that could be remembered; and that of 1684 was very severe, but not so much so as the previous one. In February, 1685, the "*Febris Nova*" appeared.

Dr. Rush remarks: "Upon the recurrence of cold damp weather, the cases immediately multiplied, and those who had been previously ill never failed to become worse. Exposure to the external atmosphere and cold seemed constantly to predispose to the disease."†

Dr. Folchi, writing concerning the epidemic resembling cerebro-spinal meningitis, which prevailed at Rome during the winter of 1817, attributed its spread to the extraordinarily mild temperature of the atmosphere during that winter.‡

Dr. Hazeltine, of Maine, gives as one cause, "coldness and humidity of the spring, summer and autumnal seasons.§

M. Vieusseux says, with regard to the climate of Geneva, that the winter preceding 1805 was long, cold, not very severe. The spring was very cool and vegetation was singularly retarded. In 1805, this disease appeared.||

Dr. Henry Fish, of Hartford, Conn., says that "the winter of 1808-9 was unusually severe, the cold weather commenced earlier and continued longer than in the six or eight years preceding. The snow fell in December, in large quantities, and was not wholly removed until late in March. It was generally a foot or more in depth, and the air was intensely and uniformly cold. Snow-storms were frequent and severe, without being succeeded by thaws." This disease appeared in 1807, and was seen again in 1809.

* Boston Medical and Surgical Journal, vol. viii.

† Medical Repository, N. S., vol. iii.

‡ Quarterly Journal of Foreign Medicine and Surgery, vol. i.

§ Medical Repository, New Series, vol. iii.

|| Jour. de Med., Chir., Phar., &c., t. xi.

The Committee of the Massachusetts Medical Society in 1810 reported that the previous summer was cold; the weather from November to the 12th of January was calm and moderate, with more heat than usual; after December 1st, there was considerable rain and but little snow; occasionally the change in temperature was very great. In January the epidemic commenced.

J. Wilson, of Salisbury, N. H., says: "It seems probable that the changes of temperature have for five years past (preceding 1813) been much greater than ever before were known. That many animals expired by its immediate operation, is a fact. That the organization of vegetables suffered a derangement which eventually proved fatal to many of them, is a circumstance that any person may ascertain.*

J. Haviland says, with regard to the temperature of Cambridge, Eng., that the winter of 1814 was mild; in the latter part of January the epidemic commenced, which so much resembled cerebro-spinal meningitis.†

At Toulon, during the winter of 1829-30, the weather was extremely variable, and presented differences of temperature unknown to aged men who had preserved the remembrance of the most severe winters. "In December the winds blew from the east and west; there were six rainy days, the weather remained moist and cold, and the thermometer gave, at its greatest elevation, 13° and some tenths centigrade, and at its lowest 3° below 0. In January, there were the same winds; snow and hail fell, and there were six sunny days; the moist and cold weather was constant. The greatest elevation of the thermometer was 12° and its lowest 7° below 0. In February, the prevalent winds were the same. Snow fell during the beginning, rain followed so as to preserve the same temperature. The thermometer, which had descended to 3° below 0, rose to 17° towards the end of the month." It was during these three months that the disease prevailed.

M. Rollet, in a memoir read before the Academy of Medicine, says: "As to the changes of temperature, I will observe, that since the commencement of May, even to the end of July, the atmosphere has been frequently charged with electricity, that the heat, without being very elevated, has often been oppressive, and sudden variations of temperature have been quite frequent."‡

M. Claubry, in a report on the epidemics of France during the years 1841-46, says, that to the very warm summer of 1842 had succeeded a very cold and wet autumn, and a very severe winter. In February, 1843, appeared the cerebro-spinal meningitis.§

[To be continued.]

* Medical Repository, New Series, vol. i.

† Med. Trans. of Col. of Physicians, London, vol. v.

‡ M. Rollet, in Mem. de l'Acad. de Méd., t. x.

§ Mem. de l'Acad. de Méd., t. xiv.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

AUG. 13th.—*Aneurismal Dilatation of the Arch of the Aorta; Extensive Atheromatous Disease.*—The patient from whom the specimen was taken was exhibited to the Society by Dr. MORLAND, April 9th, 1866, and was then examined by a large number of the members. The “sphygmograph” was also applied to the radial arteries, at this time, by Dr. Upham, with interesting illustrative remarks.

The account of the case is as follows, being taken, mainly, from the medical records of the City Hospital, as made by Dr. Adams, one of the Resident Physicians.

The patient, Michael Kingsley, was admitted March 19th, 1866, under Dr. J. N. Borland, who had charge of him during nine days. He was a sailor, 50 years of age, a native of Ireland. One year ago, while on board a ship, on Long Island Sound, he was struck on the head by a “fall,” knocked against the vessel’s rail, and bruised in the left lumbar region. He was carried below, and expectorated about one half an ounce of fluid blood. Lameness and soreness of the lumbar region continued for two or three weeks. On coming to Boston, he was treated at the Central Office of the Dispensary. After this, he continued about as well as usual, until the middle of last October, when, after exposure to cold and wet, he had cough, and dyspnoea on exertion, without hæmoptysis or night-sweats. At this time, palpitation of the heart was noticed, and the patient ceased to work. All the symptoms gradually increased up to the time of his admission into the Hospital.

March 20.—On examination, the report of the physical signs, by Dr. Borland, is thus given: “A thrill was discovered, on palpation, most distinct over the sternal ends of the clavicles; over both carotids; between the insertions of the sterno-cleido-mastoid muscles; and at the acromial end of the left clavicle, over the subclavian artery. A murmur was heard over left upper chest, and in the left back, in the supra-spinous fossa, rapidly disappearing below the spine of the scapula. Measurement of right and left chest the same, from vertebral spinous processes, across the nipples, to the xyphoid cartilage. Sounds of heart somewhat confused: a *souffle* at the end of the first sound, and extending over the second. Pulse 96, full, strong, synchronous in the wrists, but much stronger in the left than in the right.”

Dr. Morland said he had made a great many subsequent examinations, with a nearly uniform result in all—especially towards the last of the patient’s life—but differing, somewhat, from the above, and the following is an average record. *Thrill* most distinct just above sternum; also felt in right carotid and subclavian regions; no thrill in left carotid and subclavian. *Impulse* very strong at acromial end of left clavicle; less strong, but marked, in corresponding position on right side. Over base of heart, a distinct double *souffle*, resembling a “to and fro” sound. This was not heard until some time after patient’s admission, the record on March 30 being—“Strong, direct aortic *souffle*, loudest over base of heart.”

The patient at first, and for much of the time, slept well; but

coughed considerably in the morning, on awaking, and complained of a sensation of "smothering." Nourishing but unstimulating diet was directed; also an expectorant mixture for the cough; and pain and uneasiness were relieved by external applications.

The diagnosis was *aneurism of the arch of the aorta*, although much discussion arose, from time to time, as to whether the neighboring vessels were not also involved.

April 15.—The laryngoscope was used by Dr. Henry K. Oliver, jr. No evidence was found of any pressure upon the recurrent laryngeal nerve. The recumbent position advocated by Mr. Tufnell, of Dublin, and lately favorably reported upon by Dr. H. I. Bowditch, was assumed by the patient on the 7th of May, and was maintained as rigidly as possible until his death. No proper bed, however, to fairly test the plan was obtained. A liquid farinaceous diet was ordered. In this position, the frequency of the pulse was not diminished; it remained at 96; * being counted nearly every day. The *thrill*, however, became notably less distinct, and at times was barely perceptible. At this time the patient began to be greatly troubled with hæmorrhoids, and also had diarrhœa, both of which were with great difficulty relieved. The "smothering" sensation also increased, and attacks of dyspnoea became frequent. At one period he had much hoarseness, but it soon passed off.

June 26.—Patient began to complain of violent pain at the epigastrium, accompanied by throbbing. Distinct heavy pulsation was felt in the region indicated. Some relief followed the application of hot fomentations. He was nourished by beef-tea enemata, having refused to take food. His strength rapidly failed.

June 30.—At 3½ o'clock, P.M., he was seized with an unusually severe paroxysm of dyspnoea, accompanied by extreme pain in the upper part of the right iliac fossa. The pulse, then, for the first time, began to diminish in volume and force: and, in half an hour after the urgent symptoms commenced, death took place—the patient's mind being clear to the last.

The *post-mortem* examination was made by Dr. C. W. Swan, Pathologist to the Hospital, and his account is appended.

Autopsy, July 21, twenty-three hours after death. Head not examined. Body somewhat emaciated; no rigor mortis. Lividity of depending portions of trunk.

Pericardium contained two ounces of serum. Smooth, white fibrous patches over front surface of right ventricle, and lines and dots of similar character over the course of many veins of posterior surface of left.

Heart hypertrophied. Left ventricle moderately dilated; the right slightly so. Muscular substance firm. The right auricle and ventricle and pulmonary artery contained a large blackish coagulum. Similar coagula, in less amount, occurred in the left heart. There was thickening and rigidity of the aortic valves, sufficient, apparently, to interfere moderately with the circulation.

A good deal of atheroma, partly cretaceous, in the arch of the aorta. It was well marked in the thoracic, and slight in the abdominal portion and its branches. A considerable dilatation occurred just above

* It once rose to 104, and once fell to 92.

the valves. It tapered somewhat to, and ceased abruptly at, the termination of the thoracic portion. There was a shallow, cone-shaped bulging of the aorta about the origin of the innominate, while the latter was contracted to a diameter of three sixteenths of an inch, and stiffened at its edges by cretaceous deposit. The orifices of the left carotid and subclavian were each four sixteenths of an inch in diameter, and less rigid than that of the innominate—facts which seem to account for the difference which existed between the radial pulses.

The *pleural cavities* contained each about six ounces of serum.

Lungs considerably cedematous; otherwise well.

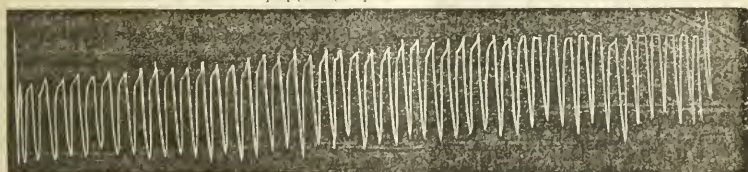
The *abdomen* contained a small amount of serum.

The *liver* was of normal size. It showed the nutmeg appearance on section.

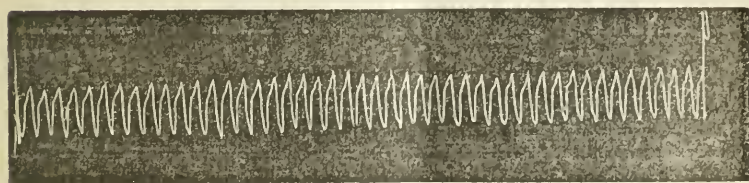
Spleen small, and quite firm.

The capsules of the *kidneys* were somewhat adherent, but the organs were not positively diseased. Other organs healthy.

Sphygmographic Indications.



A.—Right radial pulse.



B.—Left radial pulse.

See remarks by Dr. Swan, in relation to the state of the vessels, as observed after death.

Dr. OLIVER said that the object of making a laryngoscopic examination was to see if there was any pressure upon the recurrent laryngeal nerve, in which case some light would be afforded as to the origin of the aneurismal tumor. At the examination, however, there was no paralysis of either vocal cord; both cords were equally separated from the median line, and acted equally well in phonation. It may be mentioned, that there was not present, in this case, the paroxysmal cough or the hoarseness characteristic of pressure upon the recurrent nerve. The aneurisms likely to affect this nerve are, upon the right side, those of the right subclavian and the innominate arteries; and, on the left side, of the arch of the aorta.

In answer to a question by Dr. Oliver, Dr. SWAN said that the recurrent nerves were found at the autopsy to be, apparently, unaffected by pressure.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, OCTOBER 18, 1866.

ANNUAL REPORT BY THE CITY REGISTRAR OF THE BIRTHS, MARRIAGES AND DEATHS IN BOSTON FOR 1865.

THE Annual Report of our methodical and indefatigable City Registrar must rejoice the heart of every statistician. Any one not accustomed to look at the multitude of details which it furnishes in their various aspects, would be astonished to find what a host of deductions may be drawn from the "facts and figures" which every day are noted down in this official's books, bearing upon the gravest questions of public policy and private morals. The Report before us is crammed with such statistics; and the Registrar, in presenting them in their different relations, has shown that his mind is fully open to the many considerations which give such records so much value as guides and motives in some of the most important reformatory movements of the day. Its whole forty-eight pages exhibit in almost every paragraph facts or deductions of much interest and value. A few of these we propose to offer to our readers.

The first question that naturally suggests itself is, what is the population of the City that constitutes the basis of these statistics? And here we learn, that at the close of the year 1865, it was 192,324, an increase of 14,484 since the United States Census in 1860. The number of births during 1865, was 5,275—2,722 males, and 2,553 females, an increase of 283 over the preceding year, or one in 36.46 of the whole population; in 1860, the ratio was one to 30.84 of the whole population, showing a considerable diminution in the past five years. "For the last seventy years, the birthrate has been diminishing throughout the United States. The highest birthrate is found in the Territory of Utah, and in the States of Oregon, Iowa, Minnesota, Missouri, Texas, Illinois, Kansas, and Arkansas, in the order in which these States are named: and the lowest in New Hampshire, Vermont, Maine, Connecticut, California, Rhode Island, Massachusetts, and Louisiana." This is the result which might have been anticipated, showing the operation of influences in the older and more crowded communities antagonistic to the rapid increase of our population by births. As usual, of late years, the number of births among our strictly native population was much less in proportion than among our citizens of foreign birth. The ratio of births among the former was 24.75 per cent. of all the births, while the ratio of births of children of Irish parents alone was as high as 43.35 per cent. of the whole. The Registrar very sensibly remarks, in reply to the dismal forebodings of those who see in these facts a prospective conversion of Boston from an American into a European city, that "this apprehension would appear wholly groundless if those cherishing it would reflect that those who are born here are as truly and naturally American in love of country and local attach-

ments, even though their parents were born beyond the seas, as those whose pride it is that their ancestors came over in the *Mayflower*."

The colored population of Boston, in number 2,627, furnishes the following data: "Births, 64, ratio 41.05; deaths, 87, ratio 30.19. Compare with the above a similar statement of the white population: births, 5,211, ratio 36.40; deaths, 4,454, ratio 42.59."

By which it is evident that the colored population must rapidly die out here, if this state of things continues, unless their number is kept up by arrivals from other places.

Very curious details are given in connection with the marriages, but we must pass them by with the mention of the single fact, that in 407 of them, or nearly 15 per cent, the bride was older than the bridegroom, and pass on to the deaths.

These numbered 4,541—2,328 males and 2,213 females, a decrease of 570, compared with the preceding year, indicating a remarkable state of health in the city. Of the deceased, 3,143 were born in the United States. It is incidentally mentioned in this connection that the foreign-born population of Boston, according to the census of last year, numbered 66,020. The proportion of deaths of those whose parents were foreign-born was 63.15 per cent of the whole number. A table exhibiting the number of deaths in each month, shows that

"Over 23 per cent of the mortality was of children under one year of age, and that 40.60 per cent was of children under five. Of the 1,047 under one year of age, no less than 75 (7.16 per cent) died on the day of their birth. Of these, 57 were children of foreign parents. The number that died between 1 and 5 was 797, or 17.55 per cent. In 1864, the percentage of the same class was 21.83. Of this number 573, or 71.89 per cent, were of foreign parentage. The number between 5 and 10 was 182, or 4 per cent of the whole number. Of these, 121 (66.48 per cent) were children of foreign parentage. The number between 10 and 15 was 85, less than 2 per cent of all who died. The number of these who were of foreign parentage was 63, or 74 per cent of the whole number. The number of deaths under 15 years of age was 2,111. Of these, 1,464 (68.87 per cent) had foreign born parents. The number of deaths between 15 and 20 was 164, or 3.61 per cent. Of these, 46 were foreign born, while a large proportion of the remainder were of foreign parentage. Of the 559 who died between 20 and 30 (12.31 per cent), 287 (51.34 per cent) were native born, showing a slight difference in favor of those not born here. On the other hand, of the 478 who died between 30 and 40, 263 (56.16 per cent), were foreign born. There were 369 deaths of persons between 40 and 50 years of age. Of this number, those that were foreign born make 62.60 per cent. Those that were born in Ireland make 77.49 per cent of the whole number that were foreign born.

There were 288 deaths of persons between 50 and 60, making 6.34 per cent of the whole number. Of this number, the foreign born make 60.76 per cent; and of the latter, those born in Ireland make nearly 51 per cent. Of the number who died between 60 and 70 (5.74 per cent of the whole mortality), 53.25 per cent were foreign born. Of these last, the Irish make no less than 85.61 per cent. There were 211 deaths of persons above 70 years of age, making 4.64 per cent of the entire number. Those born here number 55. The foreign-born number 156, of which those born in Ireland make 63 per cent."

A carefully prepared table shows the number of deaths in each month from each fatal disease; many of these items are made the subject of detailed remark subsequently. Referring to the subject of Cholera, the Registrar mentions that during the first epidemic in Boston, in 1832, there were 78 deaths, the first one occurring on the 24th of August. During the second epidemic, in 1849, there were 611

deaths—338 males and 273 females, the first death occurring on the 3d of June; 162 only being of native birth, and of the remainder, 385 having been born in Ireland. During the third epidemic in 1854, there were 261 deaths—130 males and 131 females; of these, 71 only were native born, and all the rest, except 15, were born in Ireland.

Consumption destroyed, in 1865, 813 victims—381 males and 432 females; their ages are shown in the following summary: "Under 5 years, 41; 5 to 10, 20; 10 to 20, 81; 20 to 30, 218; 30 to 40, 167; 40 to 50, 120; 50 to 60, 66; 60 to 70, 43; 70 to 80, 22; over 80, 5.

With regard to the mortality of children under five years of age it is remarked, "That it was not until 1835 that it reached 40 per cent (41.61). In 1838, it was 40.57 per cent; in 1841, 41.83 per cent; and in 1849, 42.46 per cent. Since that time it has never been below that of 1865—40.60 per cent. In 1853, the deaths of children under 5 years of age made no less than 49.90 per cent. of all the deaths. In 1855, nearly the same result was witnessed, while in 1859 it fell to 41.92 per cent.

"It will thus be seen that the excessive mortality among children of the ages above indicated, seems to have commenced with the year 1849, with one or two exceptions. Since that year the percentage of deaths has been large, as they were prior to that period small."

A fact fairly referable to the great increase of our foreign population of late years.

The whole number of still-births reported during the year was 373; 216 males, 149 females, and 8 of which the sex was not reported.

QUACK ADVERTISEMENTS IN THE DAILY PRESS.

ONE of our evening papers remarks that any one reading our editorial of last week must be surprised to find in the *JOURNAL* an advertisement of a remedy for various nervous affections. Our reply is, that the advertisement in question is addressed to physicians and druggists, not to the public in general, who cannot be supposed to furnish many readers of an exclusively professional journal. Furthermore, the article referred to has a place in the *United States Dispensary*, and there is no novelty about it; we have, however, no faith in its efficacy, as it has utterly failed in our hands. It is rarely imported direct from South America, where it is obtained, and the French preparations of it are almost the only ones to be found in our market. The case is a very different one from the unblushing and untruthful announcements in the daily papers which were the subject of our remarks.

PROGRESS OF THE CHOLERA.

The *London Lancet* of September 22d says: "It is obvious that the disease is still widely scattered in Western and Northern France, and it is known that it has reappeared in several towns which suffered severely last year in the South. On the 6th inst. sixty deaths from cholera were registered in Marseilles. Nice, which escaped the epidemic, with the exception of a few imported cases last year, is said to have now come within its influence, several deaths being reported. The appearance of the disease in Boulogne (seemingly as yet but in a little active form) since the last week of August, shows that it has

not yet ceased to extend in North-Western France, in which wide district the epidemic has been more or less prevalent since the commencement of the year. Amiens, which suffered most severely, does not appear to have become altogether freed from the pestilence. * * Few districts of Holland and Belgium have escaped, and the sum total of deaths in both countries is mounting to a formidable figure. The whole of Northern Prussia, including the capital, and probably other districts, is infected; and the epidemic is prevalent over a broad tract of country on the eastern shores of the Baltic, as high as St. Petersburg. The disease has also found a lodgment in Sweden, at Stockholm, and in Norway, at Christiania. In Central Europe, Vienna and Pesth have been attacked. Recent news of the progress of the epidemic in Eastern Europe is wanting."

The number of deaths in Holland from cholera from April 28th to Aug. 25th, was 15,808; in Belgium, from the commencement of the epidemic to Aug. 31st, 16,699. During the seven weeks preceding the 15th of September the deaths in London were 3,091, the number for the last week being 182. In Liverpool during the week ending Sept. 17th the mortality was 182; during the three weeks preceding, 516.

In America we have merely newspaper reports which are not very reliable. The disease does not seem to be very active at present. During the epidemic at St. Louis the deaths are said to have reached the large number of 2,900 in a single week, or one and a half per cent. of the whole population. From this number they rapidly declined to 900 in a week, and now are so few as not to excite any public alarm. At Chicago the number of cases has increased of late; on the 16th there were 32 new cases and 8 deaths. In New York and Brooklyn the disease has nearly disappeared.

BOSTON DISPENSARY.

THE following are the statistics of this institution for the year ending October 1st, 1866. The number of new patients at the Central Office has been 14,412—of which 10,231 have been medical cases, and 4,181 have been surgical, classified as follows:—

MEDICAL.				
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	364	892	877	2133
2d " "	523	965	733	2221
3d " "	534	1245	1150	2929
4th " "	493	1177	1278	2948
Total,	1914	4279	4038	10,231

SURGICAL.				
1st quarter,	-	888	3d quarter,	1117
2d " "	-	1110	4th " "	1036
Total,	-	-	-	4181

Total number of cases at Central Office, - - - - - 14,412

The number of new patients in the Districts has been as follows:—

	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	293	638	759	1690
2d " "	419	954	795	2168
3d " "	351	954	906	2211
4th " "	345	912	942	2199
Total,	1408	3458	3402	8268

Discharged, cured or relieved, - - - - -	7,715
Sent to Hospitals, or removed from Districts, - - - - -	218
Died, - - - - -	297
Remaining under treatment, - - - - -	82

Patients remaining at last annual report, - - - - -	8312
	44

8268

Total number at Central Office and in Districts, - - - - - 22,680

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.

	Medical.	Surgical.	Total.
1st quarter,	4836	1627	6463
2d " "	5812	2135	7977
3d " "	6688	1739	8427
4th " "	6729	1701	8430
Total,	24,095	7202	31,297

Number of cases of midwifery, - - - - - 121

Number of recipes during the year, - - - - - 54,508

Average daily attendance, - - - - - 104

SURGEONS.

David W. Cheever, M.D.
Francis H. Brown, M.D.

Seth L. Sprague, M.D.
Calvin G. Page, M.D.

PHYSICIANS.

Henry K. Oliver, M.D.
S. H. Carney, M.D.
Hill Curtis, M.D.
B. Joy Jeffries, M.D.
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VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 13th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week - - - - -	55	42	97
Ave. mortality of corresponding weeks for ten years, 1855—1865	44.5	39.9	84.4
Average corrected to increased population - - - - -	00	00	92.71
Death of persons above 90 - - - - -	0	1	1

MARRIED.—In this city, 10th inst., Dr. James W. McLane, of New York city, to Miss Adelaide L. Richards, of this city.—On Tuesday, Sept. 18th, at the Legation of the United States, Berne, Switzerland, Lewis T. Warner, M.D., to Miss Sarah L. McKaye, both of New York.

DIED.—In this city, Oct. 11th, Dewey K. Warren, M.D., aged 45.—In Chicago, of cholera, Dr. Daniel Brainard.

DEATHS IN BOSTON for the week ending Saturday noon, Oct. 13th, 97. Males, 55—Females, 42. Abscess, 1—accident, 3—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 4—bronchitis, 1—cholera infantum, 6—cholera morbus, 2—consumption, 16—croup, 1—cystitis, 2—debility, 1—diarrhea, 2—dropsy, 2—dropsy of the brain, 3—drowned, 2—dysentery, 4—scarlet fever, 1—typhoid fever, 3—gastritis, 2—homicide, 1—infantile disease, 5—disease of the liver, 2—inflammation of the lungs, 4—marasmus, 2—old age, 4—peritonitis, 2—pleurisy, 1—puerperal disease, 1—pyæmia, 1—scalded, 1—smallpox, 2—suicide, 1—unknown, 10.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 28—between 40 and 60 years, 11—above 60 years, 13. Born in the United States, 62—Ireland, 26—other places, 9.

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No. 13.

LARYNGEAL GROWTHS.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 241.]

By HENRY K. OLIVER, M.D.

THE propriety and the necessity of surgical interference with morbid growths in the larynx are insisted upon by all authorities. The smaller tumors, it is true, may not give rise to dangerous symptoms; but in the kind of growth most frequently met with in the larynx, namely, the vegetant excrescences, and in the rarer forms, the cancerous and the fibro-plastic tumors, it is of the utmost importance to take means for their removal before they have implicated any considerable portion of the mucous tissue, and their complete extirpation is rendered more difficult or impossible. But, while the smaller growths are generally only dangerous in the prospective, instances are recorded where they have not only induced alarming suffocative paroxysms, but have even caused death from spasm of the glottis.

Left to themselves, the prognosis in the majority of the cases of laryngeal neoplasms is unfavorable. Dr. Buck says that the prognosis is, if the growth be left to itself, almost necessarily fatal, and that the catastrophe often occurs suddenly. Other authorities speak to the same effect, and Green says that, often, "the sudden death of the patient was the first indication of the existence of the tumor."

The treatment of laryngeal growths may be divided into two epochs, namely, the periods before and since the perfection of the art of laryngoscopy.*

The first epoch commences with Ehrmann, of Strasbourg. Prior to his time, the diagnosis had been but rarely made, and the treatment, when any was employed, had been either empirical, by remedies which had no effect upon a mechanical obstruction, or, *in extremis*, by the operation of tracheotomy. The idea of extirpating laryngeal growths had, indeed, occurred to other surgeons, and Desault, Dupuytren, Herbert-Mayo and Ryland,† had suggested the possibility of

* The laryngoscope was invented by Babington, in 1829, or as some aver, by Senn, about the same time; but the art of laryngoscopy began only with Czerniak, about the year 1858.

† "If it were possible to ascertain the existence of a polypus in the larynx during life," says Ryland, "it would be the duty of the surgeon to attempt its removal by the knife, or

operating through an artificial opening in the larynx; Ehrmann had even been preceded in this operation by Brauers of Louvain; but the real interest in the subject begins with Ehrmann.* Through his patient search for, and collation of, cases, and his careful study of the symptomatology, a real advance was made in the power of diagnosis; while by his description of the modes of operating, and of the means of overcoming the difficulties attending so serious an operation, the hopes of future success in the treatment of a most grave affection became comparatively bright.

The operations for the extirpation of neoplasms in the larynx before the days of the laryngoscope are of exceeding interest, and they are so few in number that I shall here give an abstract of each case.

The first operation recorded is that of G. Koderik, a surgeon of Brussels. But few details of the case are known, but from a review† of it quoted by Lewin, it appears that a laryngeal polyp, which Levret could not ligate with his instruments, was ligated by Koderik by means of a flexible instrument like a string of beads (*rosenkrantz-artig*). The date of the operation was 1771, and recovery is said to have followed.

The next case, in point of time, is that of Brauers of Louvain, in about the year 1833. The patient was an architect, aged 42 years, in whom Brauers correctly diagnosticated a laryngeal tumor, and upon whom he operated by laryngotomy. The whole cavity of the larynx was filled with a warty growth which proved to be malignant. Repeated applications of caustic and the actual cautery were made, but without causing the disappearance of the disease which promised to prove fatal.

Next follows the case of Ehrmann, in 1844, which enjoys the honor of being the first instance of recovery after extirpation by laryngotomy. The subject was a woman aged 33 years, with symptoms of a laryngeal affection existing for four years. The diagnosis was rendered certain by bits of the growth having been coughed up from time to time. The operation was commenced by an incision through the cricoid cartilage and the first two rings of the trachea. A tracheotomy tube being inserted, the patient was allowed to rest forty-eight hours, at the end of which time the incision was continued through the median line as far as the hyoid bone. A polypous excrescence was then found implanted along the left vocal cord, and was excised with a bistoury and dissecting forceps. The wound was brought together, and the canula was removed on the third day. The parts had completely healed in twenty-nine days. The patient could breathe freely, but the aphonia remained; she died five months later of typhus.

by a ligature round its base; for this purpose it would be necessary to divide the cricoid cartilage, and probably the thyroid also," but he adds, "I am not aware of any case in which this operation has been undertaken." (*Diseases, &c. of Trachea and Larynx*. London, 1837.)

* *Histoire des Polypes du Larynx*. Strasbourg, 1850.

† Richter's *Chirurg. Bibliothek*.

The next case is that of Dr. Horace Green, of New York. The patient was a girl between ten and eleven years of age, who had had symptoms referable to the respiratory apparatus, and especially to the larynx, since her third year. For some time previous to the discovery of the tumor, suffocative paroxysms were very frequent and alarming. The discovery was quite accidental, the existence of a neoplasm having never been suspected, and was made while examining the condition of the epiglottis. The patient chancing to cough while the tongue was depressed, a round whitish growth appeared to view, for an instant, at about the left lateral border of the epiglottis, and then suddenly disappeared. The removal of the tumor was effected by seizing it with a double hook, and dividing the pedicle as low down as possible with a probe-pointed knife. The polypus proved to be nearly round, of the size of a small cherry. "It was quite smooth, was covered by a mucous membrane, and presented all the characteristics of a fibrous tumor." Its attachment was supposed by Dr. Green to be to the vocal cord, or the false cord.

After the operation, all the unfavorable symptoms disappeared, and the patient subsequently enjoyed excellent health.

Dr. Gurdon Buck's case * comes next in order of time.

The patient was a woman, aged 51, who had had hoarseness and loss of voice for a year. Later, dyspnoea and suffocative paroxysms came on. The obstruction was evidently in the larynx, although the finger failed to reach any growth.

The operation was performed on the 3d of May, 1851. An incision was made into the crico-thyroid membrane, and continued in the median line through the thyroid cartilage; it was then continued downwards through two or three rings of the trachea. A number of small pediculated nodules were found on the left lateral wall of the larynx, and, on the right side, partly concealing the ventricle, was a broad-based tumor of considerable size, like condylomata, which proved to be cancerous. The growth was only partially removed on the first day, on account of the exhaustion of the patient, but the tracheotomy tube was inserted, and the attempt at removal renewed the following day, when, also, acid nitrate of mercury was applied. On the 2d of September, the same operation was repeated. The patient was, however, obliged to wear the tracheotomy tube constantly, and it was, at the last operation, inserted at a lower point in the trachea, as the disease was rapidly extending downwards. Death took place suddenly on the 4th of August, 1852, while the tube was being removed.

The next case is that of Middeldorpf.†

The patient was a clergyman, 42 years of age, in whom a lobulated pinkish-yellow tumor, of the size of a walnut, could be seen rising up near, and in the rear of, the epiglottis. Its attachment could not

* Transactions of American Medical Association for 1853.

† Die Galvano-caustik. Breslau, 1854.

be made out satisfactorily, but as the patient had, after suffering for some time with laryngeal symptoms, become subject to suffocative attacks, there seemed to be little doubt that the seat of the growth was somewhere in the interior of the larynx.

The operation consisted in passing the galvano-caustic wire over the tumor, pressing it down as far as possible towards its point of attachment, and applying the current. The symptoms were relieved immediately after the separation of the tumor, and the patient continued well for about a year, when he coughed up a fragment of the morbid growth. He was, however, seven years subsequently, tolerably well. The growth was supposed to be cancerous.

Prat's case* was that of an American who had, for a considerable time, been troubled with difficulty of swallowing, and, later, with embarrassment of respiration. The tumor could be felt with the finger, but could not be excised through the cavity of the mouth. Prat therefore made a transverse incision through the hyo-thyroid membrane, which brought him into the space between the back of the tongue and the lingual face of the epiglottis. The tumor, a firm fibrous growth three-fifths of an inch in diameter, was found attached to the left side of the laryngeal face of the epiglottis, and was seized with a hook and removed with a pair of curved scissors. The wound was closed by sutures, and complete recovery took place.

A case of the removal of growths by the use of the probang, by Dr. Green, in 1846, may also be properly mentioned in this connection.

The patient was a lawyer, aged 42 years. Symptoms of laryngeal disease had existed for three years, and these finally became so marked as to convince Dr. Green that there was serious obstruction in the larynx. The sponge-probang, charged with a strong solution of nitrate of silver, was passed, with some difficulty, through the rima glottidis, and, on its being withdrawn, several small bodies were found attached to it. The patient also coughed up several more, amounting to a dozen in all. These proved to be vegetant excrescences. The passage of the probang was continued daily for two weeks, and the number of excrescences brought away amounted to about thirty. Subsequently the symptoms and general condition of the patient improved materially, so that four years afterwards, although he could speak loud only with considerable exertion, his condition was generally satisfactory.

In this case the caustic might have had, and probably did have, an influence in arresting the further growth of the disease.

The above are the only well-authenticated instances of removal of laryngeal growths, in pre-laryngoscopic times. Astley Cooper is, however, represented as having, at a date not precisely known, torn off a growth from the epiglottis with his finger. The patient was fifty years of age, and death took place from hæmorrhage after a second attempt at removal. The specimen is still preserved in the museum of Guy's Hospital.

* *Gazette des Hopitaux*, 1859, p. 409.

Middeldorpf also speaks of Herrich having, with a pair of forceps, torn off a polypus which presented itself to view above the aperture of the larynx.

Lastly, Turck attributes to Regnoli the extirpation of a laryngeal growth by means of a bistoury. In these last two cases also, I find no dates and but few details given.

The second epoch in the treatment of laryngeal growths commences with Czermak, the inventor of the art of laryngoscopy, in the year 1858.

It is impossible to overestimate the advantages gained in the diagnosis and treatment of these affections by the use of the laryngeal mirror. In former periods, as has before been stated, the diagnosis, when made at all, was made at so late a date, that not only was the important function of the voice irretrievably lost, but, from the extent of the healthy tissue implicated, the final success of the operation for removal, which it was found necessary to perform by an artificial opening to save the life of the patient, was seriously compromised. At present, there are few cases, and those generally occurring in extreme youth, in which the diagnosis cannot be made at the earliest moment at which laryngeal symptoms present themselves.

The existence of a neoplasm in the larynx being once determined, the question as to the means to be adopted for its removal comes up. I need hardly say that, with the "eye to guide the hand," the treatment determined on, is, in all cases in which it is practicable, employed through the natural passages by the aid of the laryngeal mirror. Occasionally, however, cases present themselves to the practitioner in which an operation through the cavity of the mouth will not avail for the thorough removal of the disease. This, for example, may happen in cancerous or fibro-plastic tumors, especially if they are in a locality difficult of access, or buried deep in the tissues; and also in cases of growths, which have attained a large size, in children too young to bear a laryngoscopic examination. While, therefore, the means of aid in these affections is immeasurably in advance of the former period, it is by no means in our power to discard altogether the operations of pre-laryngoscopic times.

The division of the methods of treatment may therefore be stated as follows.

1. Removal *per vias naturales*.
2. Removal through an artificial opening.

In the first division are comprised—Removal by Cauterization, and, Removal by Instruments, either by Ligation, Excision, Evulsion, Crushing or Scarification.

Cauterization. Caustics should be carried into the larynx, with rare exceptions, only with the aid of the laryngeal mirror, for the reason that the stronger caustics are necessary for the removal of all except the lowest organized kinds of growths, and in no other way can the application be made to the desired locality. Even in the

use of the solution of nitrate of silver, of whatever strength, it would not only be useless, but most injudicious, to subject the healthy mucous membrane of the whole interior of the larynx to medication, for the sake of distributing a small portion of the liquid over the growth. The small papillary growths or follicular prolongations, attending and consequent upon chronic laryngitis, would not come under this rule. Such appearances, I have noticed, disappear with the subsidence of the inflammatory condition which gives rise to them.

The treatment by cauterization is adapted to such growths as are too small to be grasped by instruments, or to such larger growths as are sessile, whether they be the lowest organized of the neoplasms, such as the vegetant excrescences, or the dense compact fibro-plastic growths. Cauterization is also indicated in tumors which are found to bleed profusely.*

The caustics which are most employed in the removal of laryngeal tumors are nitrate of silver, nitric acid, Vienna paste, chromic acid, acid nitrate of mercury, and caustic potash.

The instruments, which have been devised for the purpose of applying these caustics, are the laryngeal porte-caustique, the silver probe, and the forceps. The porte-caustique is of various designs, but the object, in all of the patterns, is to keep the caustic covered until the point it is desired to apply it to is reached, when it is thrust out of the tube in which it is enclosed. The forceps are used to convey a small portion of caustic in a solid form to the desired spot, where it is deposited. Both these forms of instruments are, however, bulky, and when in use, not only cut off a good deal of the view into the larynx, but materially increase the chances of the sudden closure of the larynx by accidental contact with the epiglottis or other parts at the opening of the larynx. The other instrument mentioned, namely, the silver probe, can, by a little ingenuity, be made to answer every purpose in cauterization, and it has this great advantage, that on account of its slender make, the view into the larynx is hardly obstructed in the least. It is especially recommended by Fournié as a substitute for all the more complicated and bulky porte-caustiques. In order to make it still more serviceable, I recommend operators to have a little cup-like hollow made in the bulb at the end. Into this may be melted nitrate of silver; or a bit of sponge may be crowded into it, by which any caustic, either in powder or in solution, may be carried into the larynx. The overhanging edge of the hollowed bulb prevents the caustic from coming in contact with the sides of the larynx. It may be added that the probe has this additional advantage over the other porte-caustiques, that it is very flexible, and can be therefore easily bent and lengthened to adapt it to manipulation in any part of the larynx.

* Mackenzie (op. cit. p. 134) speaks of a case of warty growth on the vocal cord, the base of which he endeavored to divide with the laryngeal lancet. After the operation hæmorrhage ensued, and continued for some time to an extent that was really alarming.

In this connection, it is important to note a fact, to which attention is called by Semeleder, and which I have myself had occasion to verify, "that it is not possible in the larynx to cauterize as severely, or to allow the cautery to work mechanically, as we do elsewhere when we wish to destroy the parts, because there is not sufficient time, and the individual parts are too movable; and a superficial cauterization in many cases will lead rather to a more rapid growth than to a shrinking of the tumor—for we apply the pencil of nitrate of silver in a very different manner when we wish to destroy the hardened edges of an ulcer and when we would excite indolent granulations."*

In explanation of the phrase above quoted, "because there is not sufficient time," it may here be stated, what may already be generally known, that the larynx closes immediately upon the application of the caustic, and that a spasm more or less severe ensues. The patient should be cautioned that such a result will probably follow the application, and should be assured that there is no danger to be apprehended. This assurance may have to be repeated when the spasm is upon him, as he will very likely, if the spasm is, as it sometimes proves to be, very severe, allow his own distressing feelings to weigh more in his own mind than the practitioner's words of encouragement. The severity of the spasm varies somewhat with the kind of caustic used. I know of none that produces a more severe paroxysm, or that leaves a more disagreeable effect behind it, than the solid nitrate of silver. Chromic acid and the acid nitrate of mercury, I have noticed, may not induce any considerable spasm at the moment; but a half hour to an hour after the application I have known a severe spasm to be excited. Caustic potash produces comparatively little spasm.

[To be concluded.]

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 244.]

JOB WILSON, of New Hampshire, has given extensive observations on the climate of New England for about twenty-five years. He says, "From about 1792 to 1804, a period of about 12 years, the winters, with a few exceptions, appear to have been shorter and milder than the preceding winters were, and the summers longer and hotter than those of former years."

"On the 8th of October, 1804, a new era appears to have commenced. On this day a most tremendous snow storm happened." "The first permanent snow did not happen till near the 20th of December; but the quantity of snow that fell from this time to about the middle of February, 1805, was immense." "The spring and first summer months were unusually cool." In the preface he says,

* Caswell's translation, p. 138.

"Our climate (particularly the climate of New England) though at best very changeable, for many years prior to 1804, has been comparatively mild and steady." "But since 1804, a new era has commenced. The changes of our climate have been greater and more frequent. The effects of these changes have been very remarkable, both in the animal and in the vegetable kingdoms. To many individuals of each of these kingdoms, they have proved immediately fatal." "The late changes, or some other cause, have produced a disease, or rather diseases, with which our mother country appears never to have been acquainted, as she never suffered so great and sudden extremes of heat and cold."

In regard to 1806 he remarks, "This year I conceive to have been rather more changeable than former years have been, when compared with succeeding years; it was comparatively mild and temperate." "The ten last days in February were uncommonly warm; the mean temperature of the days was 41, and the nights 28. On the 26th day, the mercury fell suddenly from 40 to 12 at night; and rose the next day to 50." It will be remembered that it was in March of this year that the so-called "spotted fever" appeared in Massachusetts.

"The mean variations in the month of February, March and April, are 35, 36 and 34; but in this year (1807) they are 39, 53 and 55; the diurnal variations are comparatively great, which great changes of temperature we should readily conclude would produce violent disease, which indeed we find has been the case." August was changeable, rainy and chilly. In 1808 there was less variation of temperature, with rains in February. In 1809 also there was nothing unusual except an uncommon low temperature. In January, 1810, the variations were greater. During these years, from 1807 to 1809, the "spotted fever" appeared in many parts of New England, especially in Connecticut. In the early part of 1810 the disease appeared, especially in Massachusetts, where it was noticed by the State Medical Society, in Connecticut and Vermont: it was also seen in Canada.

The summer and autumn of 1810, and the whole of 1811, were moderate, without great variation and generally warm. No extensive epidemic prevailed during that time.

January of 1812, and also February, were subject to great variations of temperature. In the former month there were seven exceedingly cold days, commencing about the middle of the month. In the latter month "seven extraordinary variations happened." "The variations will stand thus: 48, 36, 33, 33, 35, 40, 43; and the period of most of these great variations is from 12 to 18 hours only." In March also there were great variations of temperature. "It should be remarked, that the periods of these variations are but little more than 12 hours. The number of degrees of variation are as follows: 34, 46, 30, 38, 30, 31, 35, 36, 46, 31." Rain fell in

both February and March. The other months were not essentially different from usual. Cerebro-spinal meningitis prevailed, especially in New Hampshire, Vermont and Maine, during the spring.

In February, 1813, there was one variation of 61° and several others of less amount. "March was not so pleasant a month, but more stormy." "No less than six great and sudden changes happened; as great as $61, 50, 35, 30, \&c.$ " April was warm, with chilly nights. The other months were in no way remarkable. "Spotted fever" appeared in January, and by the middle of February prevailed extensively in New Hampshire. It extended its ravages into the summer months, but was then much less severe.

During 1814 the winter and spring months were quite moderate, without any remarkable changes. In June there was a variation of 45° in 31 hours, and from then till September less variations about once a fortnight. In the latter month there was a variation of 55° in 32 hours. In October there were also several variations, and November was more changeable than usual. During this time the disease appeared in New England.

Dr. T. F. Prewitt, in the *St. Louis Med. and Surg. Journal*, vol. 2, says that the disease which we are considering "first made its appearance among the soldiers stationed at Chillicothe, during an unusually severe and protracted spell of dry, cold weather."

Dr. Frothingham found it to prevail during mild and damp weather in the winter.*

This record of the weather and temperature is not very full, and hence extensive generalization would not be proper; but if we take into consideration that the sudden variations mentioned by J. Wilson were usually attended with wet weather, and then notice that eight out of fourteen of the authors quoted in the previous pages mention the occurrence coincident with this disease of changeable and damp weather, or of coldness and dampness, we shall find some reason for believing that such a state of the atmosphere is favorable to the action of those influences which produce this disease. It would, however, be gratifying to have more facts upon this subject.

Not only cold and damp and variable weather were favorable to the production of this disease, but situation seems also to have had some influence.

Thus the Committee of the Massachusetts Medical Society remark that most of the places where the disease occurred are inland and elevated, with ponds and streams. In Cambridgeport most of the cases occurred near a marsh, and in Boston in that portion of the city exposed to the flats and water.

The town of Minisink, N. Y., is bounded on the east by the great drowned lands of the Wallkill, which renders the inhabitants liable to intermittent, remittent and bilious fevers in the fall of the year.†

* *American Medical Times*, April 30, 1864.

† Dr. D. R. Arnold, in *American Medical and Philosophical Register*, vol. i.

Dr. Rush says that it "prevailed most in the interior; the sea coast was exempt or suffered little. And yet in the interior of the State, the most swampy situations, margins of rivers and places the most subject to the endemical, autumnal, bilious fevers have suffered most severely."*

Dr. Mann, in his work on the diseases of the army, already referred to, gives a description of Greenbush where the pneumonic form appeared, and also of Albany where there were some cases of the cerebral variety. He says, "Greenbush is a township on the east bank of the Hudson, directly opposite Albany. The town, which occupies eight miles square, has a diversity of soil and surface. Alluvial flats border the river. Hills present themselves in the rear, distant from the bank of the river from one quarter to one mile, gradually rising until they gain an elevation of 200 feet or more. The soil in some places is clay, in others a mixture of clay, loam and sand.

"The cantonment is on an elevated plane, one mile east of the Hudson. Here are barracks for the troops of the United States army, sufficiently capacious to accommodate 4000 men, with adequate quarters for their officers. On an eminence 60 feet higher, is the Hospital, which may accommodate 100 patients. The wards of this hospital are too small in their dimensions, both for health and convenience, being only 20 feet by 16, and 9 feet in height.

"The elevation of the hospital is so great above the surface of the river, that the fogs, which, during the hot season, are suspended over the flats and villages on the banks, seldom rise to its summit.

"The temperature of the climate on the Hudson is more regular than in the same latitude on the Atlantic shores; where are experienced greater and more sudden transitions of weather than here. The cantonment, at Greenbush, has the reputation of being healthful; and the country in its vicinity salubrious.

"The city of Albany, the capital of the State of New York, is situated one mile in length on the west bank of the Hudson. It rises from the river by a gradual ascent nearly 200 feet to the elevated plain. The width of this city is from one quarter to one half a mile. On the margin of the river, the lands are alluvial and rich; while those more elevated and uneven, are a mixture of clay and sand, and barren. That part of the city, on the alluvial flats, has the reputation of being less salubrious than that on the hill. The want of a rigid health police is manifested by the filthiness of some of the streets; more especially of the back yards connected with stables and kitchens."

Dr. Lucas, of Brunswick, Va., thus describes the topography of Mecklenburgh, Lunenburg and Brunswick, Va., where the disease appeared in 1818-22. "The country is one, as to elevation, tolerably high; although not mountainous, yet it is uneven and broken.

* Medical Repository, New Series, vol. iii.

There are few, if any marshes at all to be found, but many mill-ponds and two rivers. The Roanoke runs through part of Mecklenburg, has extensive low grounds on each side of it, varying from a quarter to a half mile in width. The Meheria divides Lunenburg from Mecklenburg and runs through a part of Brunswick, in which country there are a few places having low ground of a few hundred yards in width. The low grounds on both these streams are well drained by means of ditches. The country lying generally hilly, the mill-ponds are not very broad but tolerably long. The water commonly used is fine spring-water. A line running north and south, would about place the part of the counties that have suffered most by this disease, on a parallel with the head of tide water in the Appomattox river; perhaps ten or fifteen miles above it."*

There is some doubt with regard to the identity of the disease which occurred at Marietta, O., in 1823. The situation of that town is at the confluence of the Muskingum and Ohio rivers. The former divides the town into two unequal parts. The soil is alluvial. The houses are wet during floods.†

At Toulon, in the winter of 1829-30, the convicts who were quartered on shore escaped; but those on board the centre one of three old hulks were attacked. It will be remembered that this was not only unfavorably situated for ventilation, but was also in close proximity to an old dock, where the deposit of many years was being cleaned out. This galley was also the most dilapidated, allowing the rain to penetrate through the decks; and it is not improbable that much bilge water was constantly present.

Prof. Rienzi, speaking of the epidemic which occurred during the spring of 1840, at S. Marzano, mentions that in January, 1840, the Saono overflowed its banks, and left S. Marzano as an island.‡

In 1843, the province of Seine et Marne, and in 1844, Haute Loire, were attacked with this disease. M. Claubry, who made a report with regard to it to the Academy of Medicine, says: "The village of Bannost (district of Provins) is situated on a hill in the midst of valleys which it overlooks, and in the bottom of which the rain waters collect.

"The village of St. Vénérand (district of the Puy) is, on the contrary, situated on a hill sufficiently elevated above the course of the Allier, from which, however, it experiences damp vapors. Placed on that hill, about 1,200 metres above the level of the sea, this village enjoys a naturally cold temperature, by reason of the long duration of fogs and snows which surround it during the winter season. The inhabitants of this village are in the habit of descending from it into the plain below, to engage in agricultural labors. There they generally encounter moderate temperature, and after being warmed by their

* Medical Recorder, vol. v.

† Dr. Hildreth, Philadelphia Journal of Medical and Physical Sciences, vol. ix.

‡ Medical Examiner, New Series, vol. i.

rural occupations, ascend again to their village upon the approach of night, and are exposed to a very cold temperature." *

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JULY 23d.—*Paraplegia ; Disease of the Bladder ; Destructive Inflammation of the Spinal Cord.*—Dr. MINOT said that, more than a year ago, he had reported to the Society a case of what he then considered reflex paralysis, from disease of the bladder. The spinal cord, which appeared externally to be quite healthy, was given to Dr. Dean for microscopical examination, without being incised. The examination having been deferred a long time, on account of Dr. Dean's ill health, was finally made by Dr. Charles F. Crehore, whose report will be given below. The case is as follows :—

The patient was a man, 38 years old, a lawyer by profession, but of late engaged in the recruiting business, who entered the Massachusetts General Hospital, March 12th, 1865, with complete paralysis of both lower extremities, both as to motion and sensation. The bladder and rectum were also paralyzed. He had been a healthy man, but a great smoker, and had had gonorrhœa and chancres, followed by a slight eruption a year ago. For a few months previous to his entrance into the Hospital, he had had occasional twitchings of the legs while sitting, and also while in bed. He had also experienced some urinary difficulty of late—a little difficulty in starting the flow, but no other trouble of that nature. He had also had some pain in the back, latterly, which he considered rheumatic. March 3d, he had considerable dull pain in the back, from the hips to the shoulders, which lasted a day or two. On the 10th, this pain returned, and was quite severe. That noon he found himself unable to void his urine, and also had difficulty in walking. He sent for a physician, who, after some trouble, passed a catheter and drew off his water. The difficulty in walking increased, and the same evening he had much pain in the back, and some numbness in the left foot. On the 11th, he lost all power over both lower extremities, and sensation in the right. Dr. Hodges was called to him, and on introducing a catheter, found that there was a false passage. The next day there was loss of sensation in the left lower extremity. When he entered the Hospital, the reflex action was almost wholly gone, the patient merely moving the toes a little when the soles of the feet were tickled. There was no power over the rectum or bladder. The urine was bloody. There was no tenderness in any part of the back. The intellect was unimpaired. These symptoms continued to the last. On the 16th, hiccough came on, and he died on the 19th, at 5, P.M.

At the autopsy, which was made by Dr. ELLIS, the brain and spinal cord were normal in appearance, the latter not having been incised.

* Mem. de l'Acad. de Med., t. xiv.

Some small cysts were found in each kidney. The mucous membrane of the pelves of both was injected—slightly in the left, markedly in the right. In the latter there was some pus, and limited portions of the cortical substance showed signs of nephritis. The parietes of the bladder were of a blackish color, from great congestion. The inner surface was mostly covered with a yellow fibrous layer, perhaps half a line in thickness. The limited portions of mucous membrane free from this, in the prostatic portion, were smooth, and of a dark-blue color. The tissues in the neighborhood of the prostate were deeply injected. The mucous membrane of the urethra was also injected, and the canal contracted in the membranous portion. A false passage, sufficiently large to admit a medium-sized catheter, extended from the veru montanum into the bladder, at a point two inches beyond. The other organs were healthy.

Dr. Crehore's letter is as follows :—

"106 SPRINGFIELD STREET, July 18, 1866.

"MY DEAR SIR,—About a month ago, Dr. Dean handed me a spinal cord for examination. It was divided in short pieces and hardened in chromic acid solution previous to my receiving it, and was in a most admirable condition for cutting sections from.

"I discover nothing abnormal, except in a portion of the lower dorsal region, about two and a half inches in extent. At the commencement (upper), a spot between the posterior cornua is much softened, friable, and appears to consist of granular fatty matter interspersed with oil globules, corpora amylacea and connective tissue.

"Lower down, this condition extends so as to involve nearly the whole of the cord, leaving only a narrow border or margin of nerve-tissue upon the anterior and lateral portions. It gradually decreases, and disappears upon the side of the cord.

"In the diseased part little or no trace of nerve-tissue is discoverable. It is so friable that sections can only be made thin enough for study at its commencement and termination, where it is surrounded and supported by healthy nerve tissue.

"In the middle portion the whole of the grey matter is destroyed, and the whole of the posterior column of fibres is in like condition. Communication with the brain, &c., must have been wholly carried on by the exterior fibres of the antero and antero-lateral column.

"The disease seems evidently the result of destructive inflammation.

"The nerves arising from this part of the cord are distributed to the spinal muscles and abdominal parietes.

"I have submitted these notes to Dr. Dean, who desires me to say that they agree with and confirm the opinion he formed from a previous examination that he was forced by sickness to interrupt before it was completed.

Very truly, your ob't serv't;

"DR. F. MINOT, 7 Charles St.

CHARLES FRED. CREHORE."

The same evening that this case was first reported, Dr. BORLAND reported the following similar one, which occurred under his care at the City Hospital. It is to be regretted that no microscopical examination of the cord was made.

Reflex Paralysis, following Suppression of the Catamenia.—An unmarried woman, 23 years old, a cloak maker by trade, entered the City Hospital Feb. 24th, 1865. Reported she had always led a regular

life, not overworked, or keeping late hours, and was fairly nourished. She was always well until one year since, when she had a sharp attack of acute rheumatism, and since then has always had more or less muscular and neuralgic pain. On Jan. 25th she wet her feet, taking some cold, and suddenly suppressing the menses, which were present. The next day, she experienced a dull, heavy pain in the lumbar region, with a sense of stricture in the abdomen, which last symptom persisted. Catamenia returned after two weeks absence, being present but a few hours, and then again suddenly stopping. The next day, Feb. 9th, she first noticed impairment of motion in the legs; this increased, and with it an impairment of sensation, and decided formation.

At her entrance to the Hospital, she was pale and weak; pulse 116; constipated bowels; inability to expel urine, requiring constant catheterism; these symptoms came on at the commencement of the paralysis. Dull pain in back and abdomen; entire paralysis of motion below hips, and very slight sensation; marked tenderness over distinct points along the lumbar vertebræ: anterior half of sole of left foot swollen and livid, the cuticle being detached in large masses from the seat of a blister, the base of which had a sloughy look. On the right foot, the balls of the toes were swollen, with sublivid bases to large unbroken blisters, distended with bloody serum.

Feb. 27th, three days after entrance, strongly marked reflex action was manifested on touching the feet or ankles. Sensation in thighs slightly increased. Sphincter ani completely paralyzed. Up to the 4th of March there was slight improvement in motion, none of sensation. The feet improved in condition somewhat, but deep gangrenous sloughs formed over the sacrum.

March 7th, for the first time since the commencement of the paralysis, she was able to pass urine voluntarily; this power lasted for twenty-four hours, and after this the urine dribbled away.

On the 12th of March, sleepless; pulse 96; anorexia; tongue furred; left thigh swollen, with marked oedema of dependent parts; obscure emphysematous crackling felt on pressure on inner edge of sartorius muscle; reflex action persists.

On the 14th of March, eighteen days from the commencement of the paralysis, she died.

At the autopsy, no lesion of the spinal cord, or sufficient disease of any sort to account for death was found—a small amount of tubercular disease at the apex of the left lung being the most noticeable.

Alluding to the first case, Dr. WARREN said that patients brought into the Hospital with retention of urine caused by stricture of the urethra, were very likely to have false passages made, previously to their entrance, by ineffectual efforts to relieve them by the use of instruments. Nothing requires greater forbearance on the part of the surgeon than to restrain himself from using an instrument when the patient is crying out in a paroxysm of agony to be relieved from his sufferings. Most of these cases are strictures which have been suddenly made impassable to the passage of urine from some inflammatory action, or from temporary congestion and spasm.

The course which he has generally found successful is the following:—

1st. In cases where it is possible to temporize, to give a large opi-

ate enema, and to cover the perinæum and the lower part of the abdomen with warm anodyne fomentations. By these means sleep is generally produced, attended with profuse perspiration, and on awaking the bladder is often relieved, a stream of water having passed into the bed almost unknown to the patient. Then, by pursuing an antiphlogistic course for a day or two, a small bougie may be carefully inserted, and the stricture gradually dilated. No force should be used on any account.

2d. If the suffering is excessive and the distension great, so as ordinarily to indicate puncture of the bladder by the rectum, the patient may be etherized, when by passing down a filamentary bougie and insinuating it partially into the strictured part, a small stream will in some cases at once begin to flow by its side, or trickle away on its being withdrawn.

In one case, where an old stricture of many years' standing had gradually closed so as to produce complete retention of urine, and which required immediate relief, perineal section was performed with entire relief to the retention and permanent cure of the stricture.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 25, 1866.

ETHNOLOGY IN AMERICA.

IF there were any particular direction in which the study of natural science in this country needed the fostering support of a liberal patronage, it was that in the interest of which the most beneficent gentleman of this age has chosen to express his respect for our ancient University. No country in the world offers anything like the extensive field which America presents for the investigations of the pure anthropologist, or such fascinating mysteries connected with the life of prehistoric races. The mere discovery of a few rude fragments of flint and a portion of a human jaw in the old gravel beds of a French river, and of a remarkable skull in a German cavern within a decade, has been sufficient to revolutionize the beliefs and teachings of a century, to date back the existence of man on this planet unnumbered ages, and to create a new science in natural history. The first naturalists of Europe have hardly been able to think of any other subject, and nearly all their labors have been, directly or indirectly, conducted in relation to their bearings upon the study of man and his place in the scale of creation. The names and writings of Falconer, Christy, Lartet, Boucher de Perthes, Lyell, Steenstrup, Huxley and Darwin, have become as familiar and pleasant to the educated public as those of authors of modern history and romance, and when we reflect how little was known of man's prehistoric existence ten years ago, and how much has been learned within that time by explorations in neglected refuse-heaps, by the ocean, in the muddy bottoms of inland lakes, in the unsearched soil of well-known caves, and in the gravel-beds of antediluvian time, we cannot doubt that we are only on the threshold of this enchanting study.

In America, ethnology has for a longer time occupied the thoughts of the student of nature, but in a narrower field. There have been hot discussions as to the unity of man's origin, studies of race prompted and biassed by political prejudice, superficial and imaginative descriptions of the manners and customs of our aborigines, large collections made to illustrate only their craniology, a few hasty explorations under government patronage of the strange mounds of our western lands, and reports by individual explorers among the ruins of Yucatan and Mexico: but with all this we know little, almost nothing of the races which preceded the white man upon this continent. We have no need to explore the recesses of caverns for skulls, nor the gravel of past geological eras for remains; our studies of primitive man may be pursued with living specimens, and our first duty is to conduct them in a systematic method before the rapidly vanishing opportunity has entirely passed away.

What a magnificent museum a few years of such labors, well directed, might build up, stored as it would be with the crania and skeletons, the fabrics, and paintings to illustrate the customs and physiognomy of every tribe of the red man still existing, and with the bones of the existing animals associated with him, also becoming extinct, which possess so great value in connection with the remains found with still earlier and even fossil man: with models of the ancient earthworks of the West and the remains which thorough exploration would bring to light of those mysterious mound builders; with relics of the unknown miners from the copper regions of Lake Superior; with the results of proper scientific expeditions among the ruined palaces of Central America, which the writings of Prescott and Stevens have painted in such fascinating colors; and, lastly, with the vestiges of still more remote epochs which remain to be discovered in the soil of this vast continent. Such are the results which may be anticipated from this wise and generous gift of Mr. Peabody. Such a museum is now, in fact, contemplated by the Emperor of France, in behalf of the interests of Archaeology and Ethnology in Europe, under the direction of Prince Napoleon.

How admirably the founder of this princely endowment understands the necessities and organization of such a trust, will be evident to our readers on examining the instrument of gift published below. It only remains to select the proper person to fill this new chair in the University to ensure the success of a project which has long been regarded by men of science as of the utmost importance.

GEORGETOWN, October 8, 1866.

To the Hon. Robert C. Winthrop, His Excellency Charles Francis Adams, Francis Peabody, Stephen Salisbury, Asa Gray, Jeffries Wyman, and George Peabody Russell, Esq's:

Gentlemen,—Accompanying this letter I enclose an instrument giving to you one hundred and fifty thousand dollars (\$150,000) in trust for the foundation and maintenance of a Museum and Professorship of American Archaeology and Ethnology, in connection with Harvard University.

I have for some years had the purpose of contributing, as I might find opportunity, to extend the usefulness of the honored and ancient university of our Commonwealth, and I trust that in view of the im-

portance and national character of the proposed department and its interesting relations to kindred investigations in other countries, the means I have chosen may prove acceptable.

On learning of your acceptance of the trust, and of the assent of the President and Fellows of Harvard College to its terms, I shall be prepared to pay over to you the sum I have named.

Aside from the provisions of the instrument of gift, I leave in your hands the details and management of the trust; only suggesting, that in view of the gradual obliteration or destruction of the works and remains of the ancient races of this continent, the labor of exploration and collection be commenced at as early a day as practicable; and also that in the event of the discovery in America of human remains or implements of an earlier geological period than the present, especial attention be given to their study and their comparison with those found in other countries.

With the hope that the Museum, as thus established and maintained, may be instrumental in promoting and extending its department of science, and with fullest confidence that under your care the best means will be adopted to secure the end desired,

I am, &c.,

GEORGE PEABODY.

I do hereby give to Robert C. Winthrop of Boston, Charles Francis Adams of Quincy, Francis Peabody of Salem, Stephen Salisbury of Worcester, Asa Gray of Cambridge, Jeffries Wyman of Cambridge, and George Peabody Russell of Salem, all of Massachusetts, the sum of one hundred and fifty thousand dollars, to be by them and their successors held in trust to found and maintain a Museum of American Archæology and Ethnology, in connection with Harvard University, in the city of Cambridge, and Commonwealth of Massachusetts.

Of this sum I direct that my said trustees shall invest forty-five thousand dollars as a fund, the income of which shall be applied to forming and preserving collections of antiquities, and objects relating to the early races of the American Continent, or such (including such books and works as may form a good working library for the departments of science indicated) as shall be requisite for the investigation and illustration of Archæology and Ethnology in general, in main and special reference, however, to the Aboriginal American races.

I direct that the income of the further sum of forty-five thousand dollars shall be applied by my said trustees to the establishment and maintenance of a Professorship of American Archæology and Ethnology in Harvard University; said professor shall be appointed by the President and Fellows of Harvard College, with the concurrence of the overseers, in the same manner as other professors are appointed, but upon the nomination of the founder or the board of trustees. He shall have charge of the above-mentioned collections, and shall deliver one or more courses of lectures annually, under the direction of the government of the university, on subjects connected with said departments of science.

Until this professorship is filled, or during the time it may be vacant, the income from the fund appropriated to it shall be devoted to the care and increase of the collections.

I further direct that the remaining sum of sixty thousand dollars, invested and accumulated as a Building Fund, and two layers of stone, face. With it were

to at least one hundred thousand dollars, when it may be employed in the erection of a suitable fire-proof museum building, upon land to be given for that purpose, free of cost or rental, by the president and fellows of Harvard College, the building, when completed, to become the property of the college, for the uses of this trust and none other.

The board of trustees I have thus constituted shall always be composed of seven persons, and it is my wish that the office of chairman be filled by Mr. Winthrop—in the event of his death or resignation, by Mr. Adams, and so successively in the order I have named above. The trustees shall keep a record of their doings and shall annually prepare a report setting forth the condition of the trust and funds, and the amount of income received and paid out by them, during the previous year. This report, signed by the trustees, shall be presented to the president and fellows of the college.

In the event of the death or resignation of Mr. Winthrop, I direct that the vacancy in the number of the board be filled by the president of the Massachusetts Historical Society, who *ex officio* shall forever after be a member of the board. In the event of the death or resignation of Mr. Peabody, the vacancy to be filled by the president of the scientific body now established in the city of Salem, under the name of the Essex Institute; of Mr. Salisbury, by the president of the American Antiquarian Society; of Prof. Gray, by the president of the American Academy of Arts and Sciences; and of Prof. Wyman, by the president of the Boston Society of Natural History, all of whom shall forever after be *ex officio* members of the board.

Should the president of either of the societies I have named decline to act as a trustee, such vacancy, and all other vacancies that may occur in the number of the trustees, shall be filled by the remaining trustees, who shall, within a reasonable time, make the appointment or appointments.

I give to my said trustees the liberty to obtain from the Legislature an act of incorporation, if they deem it desirable; to make all necessary by-laws, to appoint a treasurer, and to enter into any arrangements and agreements with the government of Harvard College, not inconsistent with the terms of this trust, which may, in their opinion, be expedient.

(Signed)

GEORGE PEABODY.

Georgetown, October 8, 1866.

LETTER FROM PHILADELPHIA.

MESSRS. EDITORS,—The medical schools of the city have opened, and with every prospect of full attendance. The election which has just passed debarred many from coming at the regular opening of the sessions, but now, that being over, the seats begin to be well filled, and new faces greet the old ones daily. The introductory lecture at the Jefferson was delivered by Prof. Wallace; that at the University by Prof. Penrose, both of them to large and attentive audiences. Of late years, the contest as to the number of students has been a close one. Last year, each had the same number of graduates. Heretofore, the University has led all the other schools. Indications now point to a different result. The system pursued at the Jefferson College this ses-

I have and will continue to be, somewhat different from that formerly find opportunity; the excellent facilities for clinical instruction will be university of our Cohis session there were two clinics—the medical and

the surgical. Now we have three. The first, twice each week—a general medical clinic; the second, twice each week—devoted to diseases peculiar to women and children; and the third, the remaining two days of the week—the surgical. The first will be conducted by Dr. Da Costa; the second, by Prof. Wallace; and the third, by Profs. Gross and Pancoast. Interesting cases will often present themselves here; and now that the lectures have commenced, I shall endeavor, from time to time, to interest your readers with sketches of some of the most interesting cases.

E. R. HUTCHINS.

Philadelphia, Oct. 13, 1866.

THE eighty-third birthday of Dr. Jeremy Stimson, of Dedham, was appropriately remembered on the 17th of October, by his townsmen and relations, at the residence of his son-in-law, John Gardner, Esq. For fifty-nine years a practitioner in Dedham, and one of the leading consulting physicians of Norfolk County, Dr. Stimson has won the grateful remembrance, affection and respect of a large circle, who gladly embraced the opportunity to honor their revered friend and wish him many happy new years. Evergreen mottoes, autumn bouquets, and an assembled company of old and young, conspired to make the superb October afternoon on which his birthday fell a memorable and happy one for Dr. Stimson, as well as for all those who enjoyed the cordial hospitality with which every one was welcomed to the gathering.

MEDICAL INTELLIGENCE.

M. BROCA, the distinguished anthropologist and pathologist, has been elected into the Académie de Médecine. Among the competitors for the honor were MM. Demarquay, Legouest, Follin and Guérin. Professor Matteucci has also been appointed foreign associate.

Sir Charles Hastings, one of the leading physicians of England, and founder of the British Medical Association, is dead, and Gibert, the well-known dermatologist of San Louis Hospital, Paris, recently died of cholera.

It is proposed to raise a fund in Great Britain for the benefit of Dr. B. W. Richardson, the discoverer of local anæsthesia by ether spray, whose devotion to scientific research has not been advantageous to his own interests.

At the late meeting of the British Medical Association at Chester, the announcement by the President that Lieutenant-Colonel Cox, M.D., of Maryland, was present as the representative of the American Medical Association, was received with much enthusiasm. Dr. Stokes was declared President elect of the next meeting, which is to be held at Dublin. The address in medicine was made by Dr. Bennett; in surgery, by Wm. Bowman, F.R.S.

The *Medical Times and Gazette* reports a case of instantaneous death, at Liverpool, from swallowing carbolic acid. Also a death from the heated fumes of cyanide of potassium.

A fragment of a jaw-bone, probably human, but presenting remarkable pithecoïd characters, has been found in a cavern of the Lesse river, in a perfectly stratified deposit of sandy clay under two layers of stalagmite, at a depth of twelve feet from the surface. With it were

found an unmistakably human ulna, a piece of worked reindeer bone, and remains of the mammoth, wooly rhinoceros and cave hyæna.

A French physician recently became the legatee of the great bulk of a distinguished patient's fortune, but the French tribunal has decided that doctors who shall have attended a person for the illness of which he dies are incapable of receiving any legacy made in their favor during the progress of that malady.

A third case of painless Cæsarean section, successful, under Dr. Richardson's method of local anæsthesia, in London, is announced in the English journals.

The *Lancet* states that Dr. Joly has lately made a report to the Academy of Medicine of Paris, in which he deprecates the increased tendency to the consumption of alcohol by the French nation. A hundred years ago, France only consumed 200,000 hectolitres of alcohol yearly. She now consumes 4,000,000. Dr. Joly declares that an increasing tendency towards mental diseases has been generated by the increasing consumption of spirits, and an official report lately published seems to corroborate his views, the abuse of alcohol accounting for one fifth of the insanity in France.

Late German journals state that the wounds produced by the Prussian needle gun in the Bohemian battles were generally trifling in their nature, but as disabling as those inflicted by weapons of larger calibre. They seemed to occur, to a large extent, in the hands and feet.

The latest number of *L'Union Médicale* announces the death of Ros-tan, on the 4th of the present month, at the age of 76, in Paris.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 20th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	40	38	78
Ave. mortality of corresponding weeks for ten years, 1855-1865	35.4	38.7	74.1
Average corrected to increased population	00	00	81.39
Death of persons above 90	0	0	0

CORRECTION.—In the case reported by Dr. Morland, in our last week's issue, the sphygmographic illustrations were misplaced, that for the *right* radial pulse taking the place of the *left*. The left radial pulse was much the stronger, and the illustration showed it.

BOOKS RECEIVED.—The Science and Practice of Medicine. By William Aitken, M.D. In two Volumes. Vol. I. From the Fourth London Edition. With Additions, by Meredith Clymer, M.D. Philadelphia: Lindsay & Blakiston. 1866.—Asiatic Cholera. A Treatise on its Origin, Pathology, Treatment and Cure. By E. Whitney, M.D., and A. B. Whitney, M.D. New York: M. W. Dodd. 1866.

MARRIED.—In this city, 17th inst., Dr. D. M. Goodwin to Miss Hattie T. Cook, both of Montpelier, Vt.—18th inst., Dr. Horace Kimball, of New York, to Miss Antoinette A. Holbrook, of South Braintree.—At Dedham, 17th inst., George Cuvier Harlan, M.D., of Philadelphia, to Miss Mary, daughter of the late Silas Holman, M.D., of Gardiner, Me.—At Framingham, 18th inst., Dr. R. B. Granger, of Boston, to Miss Hester G. Billings, of F.

DEATHS IN BOSTON for the week ending Saturday noon, Oct. 20th, 78. Males, 40—Females, 38. Accident, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—inflammation of the brain, 1—cancer, 1—carbuncle, 1—cholera infantum, 3—cholera morbus, 4—consumption, 11—convulsions, 3—croup, 3—diarrhoea, 3—dropsy, 1—dysentery, 4—scarlet fever, 1—typhoid fever, 3—senile gangrene, 1—disease of the heart, 2—hernia, 1—infantile disease, 3—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 2—old age, 3—premature birth, 2—serofula, 2—smallpox, 4—unknown, 4—whooping cough, 1.

Under 5 years of age, 36—between 5 and 20 years, 5—between 20 and 40 years, 12—between 40 and 60 years, 9—above 60 years, 16. Born in the United States, 55—Ireland, 13—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV. THURSDAY, NOVEMBER 1, 1866.

No. 14.

"WHY NOT? A BOOK FOR EVERY WOMAN."

A WOMAN'S VIEW.*

[Communicated for the Boston Medical and Surgical Journal.]

THE light in which a subject presents itself depends very much upon the stand-point from which we view it. Dr. Storer's arguments and statements are earnest, conscientious and powerful; but women, the chief players in this tragedy of life, feel that while the facts are in possession of medical men, their motives are not so well known and appreciated. Often they are of such a character as may not be repeated, even to the long-tried and trusted physician; for there are certain things of too painfully delicate a nature for woman's lips to utter to a masculine ear; while to a sister sympathizer, perhaps, the whole story is freely poured out.

Abortion is fearfully frequent, even more so than Dr. Storer has assumed, and is rapidly increasing. One great reason of the aversion to child-bearing is the thousand disagreeable and painful experiences which attend the long months of patient waiting, and the certain agony at the end—agony which is akin to nothing else on earth—agony which the tenderest susceptibilities and sympathies of the noblest physician can but faintly imagine—agony which, in not one case in a hundred, is mitigated by anæsthesia. If the blessed, benevolent suggestion of the general use of chloroform could be adopted, the world would hear less of abortions. The thousand times reiterated fact, that "it is a woman's *duty* to suffer this," and that it is "the end to which she was created," is but sorry comfort in the hour of her anguish, and such injunctions will, of themselves, never work reformation.

It is a suggestive fact that it is not young wives, but mothers, who most frequently procure abortion; women of mature years, who

* This communication, a proper supplement to Dr. Storer's prize essay published under the above title, has been sent to us by a lady, "the wife of a Christian physician," who has certainly expressed with exceeding delicacy and truthfulness the universal feeling of her sex upon a subject which deserves more attention from our profession than it has hitherto received. We publish it with pleasure, and wish that it might find its way, in some more popular form than our pages afford, to the eyes of every husband in the land.

know what they are doing, and the danger before them. That they are guilty of taking life is not generally understood (that there is life actually existing at the time the bud is blighted), but that the essential principle, which, under favoring circumstances, might at some distant day produce life, is removed.

It is not strange that women of delicate organization shrink from suffering, and perhaps grow cowardly in face of duty. Many is the intelligent woman, noble in all else, who says, consciously and deliberately, "I would rather die than pass through that agony again"; and, in such a frame of mind, how long would the prospect of feeble health at some distant day, weigh with the prospect of immediate suffering, almost, or quite to death? I do not say she is right. I only say she needs something else than censure.

The true and *greatest* cause of abortion is one hidden from the world, viz.: unhappiness and want of consideration towards wives in the marriage relation, the more refined education of girls, and their subsequent revolting from the degradation of being a mere thing—an appendage. All the world knows that in this "age of progress," marriage is too often corrupted from a sanctuary of love and purity, to a convenience for revelling and grossness. Many is the intellectual, spiritual woman bound to such a condition, which she will not for pride's sake, or honor's sake, report. Stung by disappointment, she rebels, and is perhaps told that marital rights are ordained of society and Heaven, and that she, knowing it, should not have come within their power. A very common argument, true within limits; but power does not necessarily imply right of abuse. She is, perhaps, on the way to motherhood, and with her feeble strength, depressed spirits, and waning ambition and courage, she needs sympathy, comfort and encouragement. Surely, her burden is heavy enough. But if she grieves or complains, she is perhaps confronted with the assertion that it is what she is made for—and with bitterness of heart and sorrow of soul, looking down through long weeks of heart-sickness and physical pain and unrest, to the dreaded, unknown crisis, to the after years of care, labor and anxiety, and all to bear without hearty sympathy—what wonder that she is in despair, and little cares whether she live or die? Yet she must smile, and be cheerful to the world, and it never guesses all is not right at home. This is not fancy (would it were!), but veritable every-day life. If she learns a way of escape, what wonder that she count herself happy to be rid of, not so much the pledge of a husband's love, as of his selfishness, that has haunted her life! What wonder if she for a time forget her moral obligations in her extremity, and is indifferent to the life which is no longer a blessing! Remonstrance is met at home, perhaps with inattention, perhaps with blame. Remonstrance abroad is forbidden. Whither shall she turn? What is left but to bury her grief in her own heart, and live on as best she may? Deal tenderly with these stricken ones. Condemn them not utterly, for

though they sin, they are sinned against. Don't load them with all the guilt, for they are already overborne. Not that sin in one excuses sin in another, but it is harder to walk with a mountain in our way, than in a smooth, well-beaten path.

Dr. Storer says, if women would avoid consequences, they must make choice of time; but in the goodness and generosity of his heart, he fails to see that no choice is allowed them in many cases. They are not independent, but subject; and all teaching tends to keep them so. Here is just where the trouble begins. This is why they rebel. Save themselves from the *cause* they cannot. The consequence is mainly within their power, and the temptation is strong to throw off the bond which confines them to the fireside. Domestic and maternal duties and joys, in moderate degree, make women nobler and better; but do not for a moment imagine that an almost absolute imprisonment at home, for ten years or more, as is common, with finances ranging as they ordinarily do, can tend to make wives more intelligent, more companionable, more Christian, *or more happy*. It may be duty, but of the stamp unmingled with joy.

It is noticeable that happy wives, strong in the affectionate regard of considerate husbands, rarely attempt this violence. There is but one stronger element known to society than that of a true woman's love for a worthy husband; one who is careful for her comfort and her preferences. It is generally admitted that women are not more selfish than men; that they are as ready to sacrifice comfort, to yield to inconvenience, as quick to appreciate consideration and to requite it, as men. Let such a woman, be she ever so slight and fragile, ever so much averse to motherhood, let her but be convinced that her husband would be happier with little voices singing in his home, and let him sustain her and *pity her*, and she will bear it all, even to the end, cheerfully. No complaints will be heard, and the influence of that household will be pure.

Do not accuse me of justifying abortion, or of seeking to lay blame upon innocent shoulders. Abortion is a crime, and women are guilty of it, but they sin not alone. While attention is being called to the fact, why not also to the cause? Wives' burdens are too heavy, as blanched cheeks and early graves continually testify—and the more intelligent they are, the more they recoil in disgust from the life they are led; for, mark it, it is not the ignorant class who are guilty of procuring abortion.

But what shall we say for the unhappy, unfortunate women, by no means few or inferior, who are victims of selfish and gross husbands. who are allowed no choice of time or convenience, whose hearts ache with disappointment and degradation, who find the heaviest burdens of life heaped upon them without feeling, who go almost into the shadow of death, and yet return to make the pilgrimage again and again—what shall we say for them, if they do, in their desperation, find an escape from the consequences of what was unwillingly forced

upon them? Will the Father of the sorrowful have no mercy on them? Surely they are in evil case, and their numbers are manifold. Thank God, there are yet some royal souls true to principle.

If Dr. Storer will perform as noble service for our brothers and husbands, as for ourselves, and send the two books out hand in hand, they will bring him back a rich harvest of gratitude, and amendment in morals. Let women feel that they are honored and appreciated, *really*, for their worth, not for their convenience, and the mass will not attempt to defeat the purposes of their being.—For those to whom fashion is god, I have not a word to offer. Let them plead for themselves.

RUPTURE OF THE TRICUSPID VALVES OF THE HEART FROM FRIGHT. DEATH.

By ALFRED HITCHCOCK, M.D., Fitchburg.

[Communicated for the Boston Medical and Surgical Journal.]

THE subject, Mabel H., aged two years and nine months, child of John S. Ray, of this town, was uncommonly fleshy, of a sanguine and very nervous temperament; the intellect and affections being somewhat precociously developed. The child had been many times frightened by fire alarms, and was often nervously excited by loud noises and other sudden and unusual causes. In the middle of the night of July 16th, 1865, the steam fire whistle sounded an alarm suddenly, and somewhat protracted, in the immediate vicinity of the grandmother's residence, with whom the child was then stopping. It awoke in terror, screaming, and panting for breath, with suffocating paroxysms. It was several hours before a moderate degree of quiet could be restored; towards morning, however, the child slept a little, but the breathing was labored and the skin somewhat livid. Spontaneous vomiting occurred soon after the injury, and was many times repeated before death. Vomiting did not relieve the dyspnœa. During the 17th and 18th, the dyspnœa continued, varying in severity, but constantly increasing the suspicion of some very grave mechanical lesion. The radial pulse was much of the time absent or too feeble and irregular to be counted; and the sounds of the heart were either too feeble to be heard or too irregular and tumultuous to be in any manner identified. There was loud and moist bronchial and tracheal rattle, so as sometimes to suggest the presence of some foreign body in the respiratory passages. The weight of evidence, however, during life, as derived from the vomiting, the pulselessness, the lividity and dyspnœa, warranted the expression of a belief that some mechanical obstruction existed at the cardiac valves. This theory of the case strongly impressed itself on my mind, from the fact of having within a few years seen two cases of death from polypi plugging up the right auriculo-ventricular passage, each of which was attended

by the same phenomena manifested in this case. The child died seventy-eight hours after the fright.

Dr. George D. Colony assisted me in the *post-mortem* examination. The right auriculo-ventricular valves of the heart were lacerated and broken in their substance; also several of the *carneæ columnæ* and *chordæ tendineæ*; and the endocardiac serous membrane in the vicinity was ecchymosed and elevated by the infiltration of blood underneath and around the points of ruptured tissue. The right auricle and ventricle, by the destruction of the tricuspid valves, became one continuous distended pouch, which contained a small quantity of coagula. This change in the cavities and mechanical relation of the heart's propelling power, of necessity created a fatal inability in the right ventricle to impel the blood to the lungs sufficient to sustain life for any considerable time.

The lungs showed venous congestion. No other morbid appearances were found in any of the viscera.

October 10th, 1866.

LARYNGEAL GROWTHS.

[Communicated for the Boston Medical and Surgical Journal.—Concluded from page 259.]

By HENRY K. OLIVER, M.D.

Removal by the Use of Instruments.

LIGATION.—Ligation may be accomplished either by the aid of the *ceraseur*, which is by far the most common, or of the galvano-caustic wire.

Koderik seems to have been the first to employ the *ceraseur* in the removal of a tumor of the larynx. This case occurred in pre-laryngoscopic times, and has already been referred to. The first case of removal with the aid of the laryngoscope is attributed to Dr. Walker, of Peterborough, Eng. Dr. Walker's instrument consisted of a Gooch's double silver canula, bent at a suitable angle, with a loop of wire at the end.

The *ceraseur* at present used consists of a single tube suitably bent, with mechanism for pulling the wire home by the finger of the same hand which introduces the instrument. The cases best suited to its use are pediculated tumors, although it may sometimes be of service in the removal of portions of a soft sessile growth. The use of the *ceraseur* is strongly recommended by some operators, Gibb and Elsberg for instance, in preference to all other instruments. Mackenzie and Lewin, however, urge what seems to them a decided objection to its use, namely, the danger that the growth, when separated, may fall into the trachea and cause serious trouble. Mackenzie, therefore, limits the employment of the *ceraseur* to such growths as are situated so high up in the larynx, that, when separated from their attachment, they cannot fall into the trachea, but will be cough-

ed up.* It is, however, very doubtful if the *ecraseur* acts in the larynx as it does elsewhere. It is noticeable that, in the greater part of the cases of removal by this instrument, the polypus is said to have been brought away in the loop of the wire. It is therefore probable that the pedicle is not cut through by the wire, but that the tumor is torn off from its attachment.† In some cases in which the polypus did not come away in the loop, it was spit out afterwards, having been probably disengaged in the contraction of the parts which the extraction induced. The fact, therefore, that the *ecraseur* does not always cut the pedicle, should be borne in mind in the removal of tumors from the vocal cords, for the violent tearing away of a tumor firmly attached in this locality might do great mischief.

The use of the galvano-caustic is especially recommended by Middeldorpf. A case operated on by him has already been mentioned. It is, however, doubtful if this method will find many followers, principally because of the injury which the hot wire may easily inflict on neighboring parts. It will probably be restricted in its use to large growths high up in the larynx.

Excision.—The case of excision by Dr. Green has already been recorded above. There may still occur cases in which the same method of operating, namely, seizing the tumor by forceps and separating it by scissors or knife, must be practised, as in the case of a large firm polypus; but in the vast majority of cases the employment of two instruments, simultaneously, would be found impracticable.

Bruns, who was the first to operate for the removal of a laryngeal tumor by the aid of the laryngoscope, endeavored to "carry a covered, sharp, double hook to below the vocal cord, seizing therewith the polypus at its free end, fixing it, and excising it with a small double-edged knife, which was also to be carried down to the polypus."‡ The operation was, however, found to be tedious, and was relinquished for the method by scarification.

Excision with a single instrument, aided by the laryngeal mirror, is, however, very serviceable, and is especially recommended by Tobold. The tumors to the removal of which this method is best adapted, are sessile growths above the level of the vocal cords; it will sometimes, however, be found necessary to employ excision in tumors on the cords themselves, when the former are so interwoven with the latter that extirpation by any other method will endanger the integrity of the vocal apparatus. In growths which are found to bleed profusely, some other method should be substituted for excision.

The instruments employed in excision are scissors and knives of

* The *ecraseur* of Dr. Moura-Bouronillon has the extremity armed with a barb, by which the growth is pierced as the wire is drawn home, and its withdrawal ensured.

† I have lately, in some English medical journal, noticed some instructions in the use of the *ecraseur*, in which it is recommended that the wire be not drawn home so as to cut the pedicle of the tumor entirely through.

‡ Die erste Ausrottung eines Polypen. u. s. w. Tübingen. 1862.

various forms, according to the notion of the several designers; and the different patterns are again modified to adapt their use to the various parts of the larynx. The blades of the scissors, for instance, must work horizontally in excising a growth which lies on the upper surface of the vocal cord or the ventricular fold, and vertically for use upon the walls of the larynx or upon the free edge of the cord. Generally, the scissors are provided with little hooks to catch the tumor as it is cut off.

However useful the employment of the scissors may be in suitable cases, it must be confessed that great caution ought to be used in operating in the vicinity of the vocal cords with some of the patterns. I possess Tobold's scissors, and it seems to me that immense injury might be done to the vocal apparatus, even by an experienced operator. A somewhat serious objection to nearly all the forms of scissors is their bulk, and Tobold himself, in the last edition of his book (April, 1866), frankly admits the force of the objection.

The knives employed in excision are of two kinds—lancet-shaped and probe-pointed. The blade may be either uncovered, at the extremity of a suitably curved stem, or covered within a tube, from which it is thrust after its approach to the base of the growth. In the uncovered instruments it is necessary to have several patterns, with the cutting edges looking in the several directions. With the covered instruments, there is generally mechanism attached by which the blade may be turned in any direction desired. An instrument like the tonsillotome has been devised by Semeleder. It is a double ring, between the leaves of which a ring-shaped blade plays. In use, the ring is passed over the growth, and the blade manipulated by means of a lever with the forefinger. The instrument is also provided with a sickle-shaped knife, working between leaves of the same form. This is passed over the pedicle of growths too large to be enclosed by the ring spoken of. The idea is excellent, but unfortunately, as now made, with the lever directed from the operator, its usefulness is greatly abridged.

Evulsion.—This method is especially recommended by some operators, Mackenzie, for instance, who objects strongly to the use of the ecraseur; while others, as Tobold, prefer other modes of operating.

It is conceivable that injury might be done to the vocal apparatus by the violent tearing away of a growth firmly attached to the vocal cord; nevertheless, it cannot be denied that the success attending this method of operating has been very great.

The cases suited to removal by evulsion are, pediculated tumors with fragile pedicles, or sessile growths of soft consistence.

The cautions which were given, in speaking of the ligation of tumors on the vocal cords, may be repeated here in connection with evulsion; although a tumor seized with the forceps may, if necessary, be released, while it would be very difficult to disengage the growth from the loop of the ecraseur.

The instruments employed in the evulsion of laryngeal neoplasms are of various patterns. They are made as slender as possible, consistent with strength, and the short or grasping blades are, by means of peculiar mechanism, made to open with the smallest possible separation of the long arms. An excellent principle is that by which the blades are separated from each other by a spring movement, like Hunter's lithotomy forceps, and which are closed by sliding forward a tube which covers them. This is the pattern used particularly by Mackenzie and Semeleder. Whatever patterns are used, it is important to have the blades arranged to open in different directions, so as to be adapted to manipulation in the various parts of the larynx.

Crushing.—This method is occasionally employed to destroy the vitality of neoplasms, and thus admit of their being thrown off spontaneously, and is adapted to growths which do not seem suited to evulsion or ligation, on account of the form or nature of their attachment. The instruments employed are the same as those described under the head of evulsion. Moura, in his first case of laryngeal growth—a warty exerescence—effected its partial disappearance and the restoration of the voice, by crushing it with flexible sounds of tin.

Scarification.—The method of operating by repeated incisions, first described by Bruns, is not likely to be employed except as aid to other methods. The object it is desired to attain is, the destruction of the vitality of the tumor, as in the method by crushing, but it is more tedious than this latter. The various forms of knives and scissors described under the head of excision are suitable for the removal by scarification, and the sessile form of tumor is that in which it may be employed with the most advantage.

It is not, however, from either of the methods described, exclusively, that the best results are to be obtained. Indeed, it would seldom happen that any one method would be employed without the aid of one or more of the others. Even in the case of the pediculated tumors it is customary, after extraction by the forceps or cerascur, to apply some caustic to the stump. In crushing and in scarification, also, the destruction of the neoplasm is greatly hastened by the application of caustic. In crushing, again, small bits may be sometimes brought away by evulsion with the same instrument. It may also happen that a growth of large size, or of such a shape that it is not easily grasped by the cerascur or the forceps, may be brought, by incisions, into a form adapted to the use of either of these instruments. While, therefore, the several methods described should be, in all their details, firmly fixed in the mind of the laryngoscopist, he will find it necessary to exercise his judgment in so combining the several methods as to effect the desired object. This is not merely, it should be remembered, the removal of the tumor, but the conservation of the important function of phonation. In the matter of instruments, also, it may happen that from the character of

the growth, its form, or its location, no instrument in the operator's possession will serve the purpose of removal; and it is the experience of all authorities that the ingenuity of the operator will often be called into play in the devising of instruments adapted to the particular case.

I have not attempted, in this short sketch, to describe the many details connected with operations in the larynx. For these, the works of the various laryngoscopists may be consulted, especially Lewin, Mackenzie, Tobold, Semeleder, Gibb, &c. I will only mention here the necessity of accustoming the patient somewhat to the introduction of a foreign body into the larynx, which is best done by the patient himself passing a flexible bougie many times a day into the back part of the throat and towards the opening of the larynx. Local anæsthesia of the throat is also a very useful adjunct to operations on the larynx. This is accomplished by the previous use of bromide of potassium, or ammonium, or at the time of operating, either by the local application to the fauces of a solution of morphia, or by the use of chloroform, a few whiffs of which are found to serve a good purpose. The use of cracked ice, allowed to melt in the mouth, is also serviceable.

Lastly, will be found necessary, unusual steadiness of hand, experience in the manipulation of the instruments in the larynx—acquired by practice on a model—and, often, a dogged perseverance, on the part of the operator, and a large stock of patience on the part of the subject.*

Removal through an Artificial Opening.

Notwithstanding the immense progress made in the treatment of laryngeal neoplasms since the art of laryngoscopy, it must still be confessed that, occasionally, the desired result cannot be attained by an operation *per orem*. This fact has already been alluded to, but it will be proper to refer again, here, to the circumstances under which the removal of a tumor should be attempted through an artificial opening in the larynx.

When it is settled that a growth is of a cancerous nature, no time should be lost in the endeavor to extirpate it through the natural passages, but the removal should be effected through an external incision without delay. When a growth of this kind is in its infancy, its nature cannot, in many instances, be recognized with certainty, and can be determined only by its behavior under treatment; aided, at a later date, by the development of external characteristics, or, in case any part is extracted through the mouth, by the appearances presented under the microscope. Should removal, as thorough as is possible *per orem*, be followed by the re-appearance of the disease, the case should be looked upon as one likely to become subjected to treatment by an artificial opening.

* From two to four, and even more, months, including the time occupied in preliminary training, have been consumed in the extirpation of a small growth in the larynx.

Other attempts at removal through the mouth may properly be made, but these operations should be discontinued immediately it is probable that the growth is malignant in its nature.

What is true of cancerous tumors may be true of fibro-plastic tumors, the vegetant excreescences and the papillary growths. The former may be so firm and so deeply buried in the tissues that their complete removal cannot be effected through the mouth, and the two latter varieties may present themselves in such extensive connection with the neighboring parts, that nothing short of an operation by external incision offers any chance of success.

Extreme youth has already been mentioned as a serious impediment to any operation through the natural passages; but it may also be stated that, as a very rare circumstance, an adult may be met with in whom this method will be found impracticable, however well adapted thereto the case may be in many respects. This may occur in persons of uncontrollable excitability of temperament, or in such as present an abnormal conformation of the parts about the throat, either natural or as the result of specific disease. The pendent epiglottis, which often threatens to prove an impediment, can often be raised after the larynx has become accustomed to the presence of a foreign body.

The operations for removal of laryngeal growths through an artificial opening are—tracheo-laryngotomy and sub-hyoid laryngotomy, more properly pharyngotomy.*

Tracheo-laryngotomy.—In this operation, as performed by Ehrmann, tracheotomy preceded laryngotomy and the extirpation of the growth forty-eight hours, and Ehrmann recommends that an equal interval of time should always be allowed in the operation. The necessity for postponement of the main part of the operation may exist in special cases, as in Ehrmann's, where the patient had been greatly exhausted by threatened suffocation for some hours; but there seems no reason why, ordinarily, the operation should not be completed at one sitting. It will probably, however, be found advantageous, for many obvious reasons, to insert the tracheotomy-tube before opening the larynx, and to leave the tube in for a longer or shorter time after the removal of the growth. The incision into the larynx may be continued through the base of the epiglottis well up to the hyoid bone.

Sub-hyoid Pharyngotomy.—In this operation, which may also, if thought desirable, be preceded by tracheotomy, the incision must be made transversely through the skin, the fascia, the inner half of the sterno-hyoid muscle, and the thyro-hyoid membrane as near to the edge of the hyoid bone as possible, to avoid injuring the superior laryngeal artery and nerve, which run along the upper border of the thyroid cartilage. The internal opening should be between the epiglottis and the base of the tongue, and as the attachment of the epiglottis is not always the same, the knife should be guided by the

* The "laryngotomie sous-hyoidienne" of Vidal and Malgaigne.

finger passed down into the glosso-epiglottic space, otherwise the base of the epiglottis might be cut through transversely, and the operation rendered much more serious. Through the opening thus made the epiglottis may be drawn, and the interior of the larynx exposed to view.

Of the two operations described, the latter seems to present the fewer objections. There is much less exposure of important structures and less danger of injury to the vocal apparatus.* But the locality of the growth will influence the decision as to which of the two operations is preferable. The operation through the hyo-thyroid membrane is best suited to growths attached to the epiglottis, the ary-epiglottidean folds, the lateral walls of the larynx as far as to, and perhaps including, the ventricular bands, and the posterior wall of the larynx. In growths on or below the vocal cords, or between the anterior origin of the cords, tracheo-laryngotomy would be found necessary for their complete removal. It should be remembered that, with rare exceptions, in tumors requiring an external incision for their extirpation, the thorough use of an energetic caustic is also demanded.

Bibliographical Notices.

A Guide to the Practical Study of Diseases of the Eye, with an Outline of their Medical and Operative Treatment. By JAMES DIXON, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfields. From the third London Edition. Philadelphia: Lindsay & Blakiston. 1866.

WE have been more pleased by the perusal of this than of any other re-print of the smaller English books on diseases of the eye. It is very much to be preferred to "Jones's Ophthalmic Medicine and Surgery," which is supplied to United States Army Surgeons from the Surgeon-General's Office as a standard work. This book of Mr. Jones is simply a disgrace to present ophthalmic literature, and not much improved by its appearance in American splints. Mr. Dixon's book will do very well for the student to commence with, but both he and the practitioner need for reference such a book as a revised edition of Mackenzie would be, with a supplement like Worlemon and Testelin's French one, or the latter translated.

We have compared the third with the second edition, and find, as Mr. Dixon says, that "a considerable portion has been newly written, and the remainder re-arranged and corrected." An added chapter on "Optical Defects" briefly explains these. Page 27, Mr. Dixon says, "I am not aware that attention has been drawn to the fact that no

* It may, perhaps, be questioned whether this result would follow the division between the anterior insertion of the vocal cords, unless the cords themselves were injured by the knife of the operator, or unless one or both of the cords were the seat of the growth. In Sands's case, and in one or two of the cases mentioned in his table (New York Medical Journal, May, 1865), the voice was not lost.

crescentic patch is seen in the eyes of myopic children (adjacent to the optic papilla). Indeed, it is rarely well marked before the age of twenty, even in highly myopic patients." This statement he repeats at p. 194. It does not seem to agree with Prof. Ed. Jäger's observations, and as these have been very numerous we would refer here to his book, "*Ueber die Einstellungen des dioptrischen Apparates im menschlichen Auge.*" Wien. 1861.

To explain the *indirect* method of ophthalmoscopic examination, the author has copied a diagram from Lander, but gives none to explain the *direct* method, precisely that which is most difficult for the beginner to understand. The direct method has been neglected on this very account.

Scrofulous ophthalmia Mr. Dixon very properly places under the head of diseases of the cornea.

Page 97. In speaking of conical cornea, and the operation of "iridodesis" to remedy it, we think the names of Critchett and Bowman should have been mentioned.

A few pages are devoted to syphilitic keratitis, as explained by Mr. Hutchinson. Perhaps it is not out of place to here remark that continental observers do not entirely agree with Mr. Hutchinson's deductions. His statements are, however, undergoing the test of experience. He still holds to them.

Mr. Dixon omits all mention of atropine in the treatment of syphilitic iritis. In his previous edition he occupies more than a page in inveighing against it. We are therefore at a loss to know whether he has changed his views or forgotten it.

Page 181. Scrofulous iritis he now admits does exist as a distinct disease, contrary to the opinion expressed in his previous edition.

In speaking of the ophthalmoscopic appearances of the retina and choroid, Mr. Dixon, in his second edition, regrets the absence of "carefully-executed colored drawings," and in his last edition he refers by name to Liebreich's atlas alone. Now Prof. Ed. Jäger published in 1855, four years before Mr. Dixon's second edition, twenty-one "carefully executed colored drawings" of ophthalmoscopic appearances ("*Beiträge zur Pathologie des Auges*"). These have never been surpassed in truthfulness and artistic execution. They have sometimes been thought exaggerated. This has occurred simply from general neglect of the direct method in ophthalmoscopic examinations.

Page 219. In a note, the author says:—"The existence of a suspensory ligament of the lens has lately been altogether denied." It should certainly here have been stated by whom.

Notwithstanding Graefe's explicit directions for the proper performance of iridectomy, Mr. Dixon does not consider it necessary to remove the iris *up to its ciliary attachment*. Possibly time may change the author's ideas in this respect, as it has in reference to the operation in general. We quote the views expressed in the two editions, as they show the change of feeling experience has produced. In the former edition he says of iridectomy:—"I tried it in a series of carefully-selected and well-marked cases of the following forms of disease: 'amaurosis, with excavated optic nerve,' as Graefe has termed a peculiar morbid condition; chronic glaucoma, where the lens had not yet lost its transparency; and in cases of acute glaucoma, characterized by sudden impairment of sight, rapidly followed by inflammation

of the eyeball, dilated and fixed pupil, severe neuralgia, and total loss of vision."

"In neither of the first two classes did I find—nor had I expected to find—any improvement to result. Nor in the third class was sight restored; but the inflammation seemed to be arrested, and the neuralgia was either very much lessened or it wholly ceased. I cannot, however, attribute this result to a removal of a portion of the iris, but mainly to the evacuation of the aqueous humor through the large corneal wound." This was written in the edition of 1859; now in the last edition of 1866, Mr. Dixon says, p. 256 :—

"The recovery of sight after a well-timed and well-performed iridectomy is remarkable, in many cases amounting to the restoration of former good vision: but in other instances the patient is greatly annoyed by the dazzling appearance and the distortion of luminous bodies—the result of the over-large pupil, and the consequent flooding of the eye with light. Tinted glasses, an opaque diaphragm perforated by a narrow transverse slit—either with or without a low convex glass—or other optical contrivances, must be resorted to, according to the circumstances of the case. But even if, with all these appliances, the patient is still annoyed by irregular refraction, this comparatively trifling inconvenience is not to be put in comparison with the benefits of iridectomy, without which utter blindness must have inevitably closed the scene."

Page 255. Mr. Hancock's puncture of the globe as a substitute for iridectomy is described in such a way as to give a wrong impression of the anatomy of the parts.

We should have much preferred seeing more explicit directions for the two or three operations for entropion, because the general practitioner might thereby be enabled to relieve cases at a distance from the large cities, especially as such cases occur most frequently in the class of patients who are not able to travel far or be long from their work.

Page 289. In speaking of warts about the lids, Mr. Dixon does not mention what has been observed by Arlt, among others, namely, that they may cause a chronic conjunctival inflammation, which ceases as soon as they are removed.

Mr. Dixon dismisses, in three lines, Donders's researches with reference to the connection of strabismus and hypermetropia. Prof. Donders's observations are too important to be thus summarily treated, even in so elementary a treatise. In speaking of flap extraction, the author says, "the upper section has been found to possess so many advantages that the lower one is now scarcely ever employed." This may now be true of England, but is not so of other countries.

We would call especial attention to the last paragraph in the book, which we must quote entire.

"In spite of all sorts of improved apparatus, and the knowledge we have now arrived at as to the chief sources of danger connected with the administration of chloroform, there still remains the painful fact that, every now and then, people are killed simply by inhaling it. Such persons, indeed, bear an infinitely small proportion to the number of those who take it with perfect impunity. They form the 'exceptional cases,' but in a matter of this kind no one likes to be the 'exception.' While chloroform must ever remain an inestimable boon to mankind, enabling the surgeon to save life by operations which

- without its aid would be quite unendurable ; while in ophthalmic surgery, it makes some of the most delicate and difficult manipulations comparatively easy ; it certainly should not be given, as a matter of course, for every trifling operation, nor regarded as a universal substitute for that courage and self-command which a surgeon has a right to expect from rational patients."

We would ask Mr. Dixon, why not use ether ? He knows that it is employed most freely in extraction, for he says in a note, page 350, "Dr. Williams, of Boston, U. S., never operates in flap extraction without bringing the patient fully under the influence of ether, which he, in common with all the medical men of Boston, prefers under every condition to chloroform." This we medical gentlemen of Boston do because we feel there is a moral wrong in ever making a patient one of Mr. Dixon's "exceptions." Does not the refusal on the part of British surgeons to employ ether arise not only from a national prejudice, but also from ignorance of the proper method of its administration ?

A few interesting notes are appended to the book, and some specimens of "test types," the latter not published as original, but simply explained.

The book, as a whole, is decidedly the best published in this country for the student, and we would therefore recommend it.

The American publishers have done their work very well indeed. The diagram to explain the action of the oblique muscles is either carelessly re-printed or else the plate is worn out by use. J.

The Science and Practice of Medicine. By WILLIAM AITKEN, M.D. Edin., Professor of Pathology in the Army Medical School, &c. In two volumes. Vol. I., 955 pages. From the Fourth London Edition. With Additions, by MEREDITH CLYMER, M.D., late Professor of the Institutes and Practice of Medicine in the University of New York, &c. Philadelphia : Lindsay & Blakiston. 1866.

This is one of the most valuable books which has appeared in our language for a long time. The fact that four large editions of a work of its size and cost have been called for within a few years shows at least the estimation in which it is held in England, and the number of readers and admirers in this country has been by no means small. Its re-publication here, therefore, will be heartily welcomed, and the American Editor deserves thanks for the undertaking as well as for the few judicious additions he has made to the text.

Dr. Aitken has enjoyed peculiar advantages for collecting information connected with the geographical distribution of diseases, through his relations with the widely distributed army of Great Britain, and has thus been able to introduce many new and valuable contributions to medical science. At the same time he has been a careful student of the best writers of the past as well as a judicious observer of the labors of the present time. He has in this way written a book which wonderfully fulfils the object he had in view, viz., "to incorporate and connect the more recently established facts which illustrate the nature of diseases and their treatment with the time-honored doctrines on which the science of medicine has been based." A careful examination will show that the most recent investigations, even on subjects

considered special provinces in medical literature, have been incorporated with a wise discrimination into this general treatise, so that it literally represents the whole "science and practice of medicine" at the present day.

The contents of the first volume are as follows:—1st. Subjects connected with General Pathology; 2d. Systematic Medicine, Nosology and Classification; and 3d. Special Pathology and Therapeutics, so far as relates to Zymotic Diseases. The latter are divided into the following orders:—The Miasmatic, including Eruptive Fevers, Continued Fevers, Malarial Fevers, and Mucous Fevers; the Enthetic, which comprises Hydrophobia, Glanders, Malignant Pustule, and Syphilis; the Dietetic, embracing Scurvy, Purpura, Ergotism, Delirium Tremens, Lead-palsy, and Bronchocele; and the Parasitic, Entozoa, Epizoa, and Epiphytes. The second volume of the American Edition, which will soon be published, treats of Constitutional Diseases, Local Diseases, Developmental Diseases, and Lesions from Violence.

The appearance of the work is all that could be desired. White and clean paper, large and clear type, and a few good illustrations make it a remarkably handsome book.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 1, 1866.

THE DECAY OF NEW ENGLAND.

WE have received from a valued correspondent, one largely interested in all subjects connected with the improvement of the human race, and who has given special attention to this question, the following extract, with the request that we would state some of the facts it contains, and the hope that it might call out from professional men comments to be added to the material he has already collected on the causes of the decrease of American children. The article, which first appeared in the *New York Observer*, is too valuable, however, to be shortened by a single word or figure, and we trust that it will be carefully read, not only by our ordinary readers, but by the heads of every family of which they are the medical advisers.

The subject of which it treats is one which has been altogether too long neglected, not by physicians alone but by everybody. A few of our profession have for several years been trying to draw attention to the frightful prevalence amongst us of the chief causes of this deplorable condition of society, criminal abortion, and the publication of Dr. Storer's essay on this evil for popular circulation will, we hope, do much to correct it; it will at least help to remove the excuse of ignorance of responsibility and of the nature of the crime, which is offered by women. The article published on our first page this week, written by a lady in one of our most distant New England towns, shows, if such proof were needed, that this practice is by no means confined to Massachusetts, for it is offered not in denial but in palliation of her sex's weakness. The plea she makes is a natural one, and the fault is more the husband's than the wife's, in our opinion, for we

believe the crime is seldom committed without his knowledge if not at his instigation, and that if proper views on childbearing and duties to the community were held by him, we should find but few women who would resort to this measure.

The argument used hitherto by medical men, and very properly, has been based chiefly on moral and physiological grounds. There is another, however, of equal importance, which has been lost sight of, and which will be found well stated in the article quoted below. These facts are of grave importance, and intimately affect our national existence. We cannot shut our eyes to their meaning, or rest satisfied with the cheerful reflection that they are part of the natural and uncontrollable laws of population. The Roman and Grecian peoples first deteriorated and then were pushed aside by sturdier races, and the red man of this continent and the autochthones of Asia have dwindled before the antagonism of the harder blood and brains of the Anglo-saxon race, just as *Mus decumanus* has overspread the world and nearly exterminated every other rat in its course. That the weakest must go to the wall is a law of race, the workings of which may be retarded but can in no way be prevented. The Puritan stock of New England, however, has not deteriorated physically or mentally, nor do the facts given below point to any such conclusion. It will be seen that the marked decrease in the number of American births dates back to a comparatively few years, and the causes of this diminution are wholly of our creation and within our control. Should the well-founded fears which are here expressed that we of New England are to be supplanted at no distant day by a foreign race be fulfilled, it will be the result of no physical or mental superiority on its part, but a voluntary and conscious act of suicide on our own.

Connected with the subject of vital statistics is a matter of vast importance, viz., *increase of population*. This can be effected only in two ways. 1st, by the births exceeding the deaths; and 2d, by immigration. The census shows a gradual increase of population in Massachusetts for the last half century. But within some thirty to forty years, there has been a large increase from foreign immigration. In 1830, the census returned less than ten thousand inhabitants of a foreign origin. In 1860, there were over two hundred and sixty thousand of this class. In examining the cities and towns where the principal increase of population has taken place, it will be found that this increase is largely made up of a foreign element. While the Irish, the Scotch, the English, and the Canadian French have been pouring into Massachusetts, large numbers of its native-born citizens have, at the same time, been emigrating to California, to the West, and to the South. But neither by census nor by any other record, can we ascertain the number of persons removing, from time to time, from this State to find settlements and homes elsewhere. It is impossible, therefore, to determine precisely what has been the actual increase of population from this quarter. How, then, stands the other source of supply? The census of 1860 made the population of the State 1,231,066—of these 260,114 were of foreign origin. From 1855 to 1860, the returns made but a slight increase in the number of births. In 1860, the number of births reported was 35,445; more than one half of which were foreign. Up to this time the majority of births had always been American, but here at this period the scale turned. A population of 260,114 foreigners could have more children than 970,052 Americans—almost four times as many, in proportion to the same number of inhabitants. Since 1860, the proportion of foreign births has gained on the Americans, till in 1864, they amount to almost one thousand majority. If, now, the mortality record is compared with the number of births, it will test the increase of population from this source. The report of 1864 gives 28,723 deaths and 30,449 births—an increase of only 1,726 as a whole. But the

same report returns the deaths as follows :—American, 24,021 ; Foreign, 4,207 ; and not stated, 485. The parentage of births is reported thus : American, 13,453 ; Foreign, 14,266 ; American father and Foreign mother, 1,030 ; Foreign father and American mother, 1,209, and 491 not stated. It will be seen at once by these figures that the number of deaths with the Americans for 1864 exceeds that of the births over 9,000 ! But this is not all ; only about half those born that year ever reached the adult age, which will add some 6,000 more, making a decrease in one year of over 15,000 persons reaching adult life—commencing in 1864. It may be said that the war made this difference—that on the one hand the death of many men by the war, and the absence of others, served to diminish the births, while on the other hand, many came home to die, thereby increasing the mortality. Admitting the force of these facts, it does not explain fully this difference. The number of American births had been diminishing for a long series of years before the war, and, for several years prior to 1861, the number of American deaths exceeded that of the births.

It may be said that the registry is not complete—that many births occur that are not reported ; so there may be many deaths not returned. But it is not so. These returns are carefully collected throughout the State, and it is impossible that there can be any mistakes or omissions here which could materially affect the result.

These facts and figures are so startling, and look so unpropitious for the increase, if not even the long continuance of the native stock of the State, can they be disproved by evidence obtained from other sources ?

From the first settlements in New England, it has been customary in every parish or incorporated town, to keep an exact record of all children born, thus preserving family histories. Some individual was always appointed as clerk of the parish or town to keep these records, which have been carefully continued to the present time. Thus an exact record of all the births occurring in every parish or town, for over two hundred years, has been kept and preserved—extending through six or seven generations. These records have been carefully examined in a large number of cases with reference to the number of births. For the sake of convenience, an average of all the children in each generation has been made to every family, and there has been a general correspondence in the results. We here present the exact figures from an inland town in the State which has been occupied by six generations. The first generation had an average to each family, 9.50 (9½) children ; the second, 7.31 ; the third, 7.69 ; the fourth, 7.25 ; the fifth, 4.90 ; and the sixth, 2.84. The last generation brings the history down to the present time. In all the towns examined, the first settlers had, on an average to each family, from eight to ten children, which diminished slowly with the earlier generations, till we reach the last two generations, when the number drops off more rapidly. It is surprising how many and what large families were once found in those old towns. In one small town, settled in 1655, may be found on its records these facts : There are recorded the names of twenty-six families having ten children each ; twenty families having eleven each ; twenty-four having twelve each ; thirteen families having thirteen each ; five families having fourteen each ; one family having fifteen, and one having twenty-one. There were ninety families having one thousand and forty-three children. Nothing like this, not even an approximation to it, can now be found in any town in the Commonwealth. It is very rare that an American family can now be found anywhere, having ten children ; but here were ninety families each having that number and upwards. And nearly all the children born in those early times, grew up to adult age, whereas now only about one-half reach that age.

Again, an examination of these town records shows that, for several generations after the first settlement, the number of families having only two, three or four children, was comparatively small, and there was scarcely a family then to be found which had no children. The situation of such a family was regarded, in those times, as a calamity. But, in all the cases where the average number of children to each family has been obtained from town records, it is found that the present generation upon the stage will average to each family only about three children. In some few places the average number of children was four, and, occa-

sionally, a fraction higher, but there were far more places where the average was less than three. This same general fact is confirmed from personal knowledge, and numerous inquiries, in a large number of places, made with reference to this very object. Let any one having an extensive acquaintance in rural or city districts in the State, make a careful investigation upon this subject, and he will be surprised at the result, especially at the large number of married people having no children, and others having only one or two.

There is another mode of obtaining evidence on this subject. Within some twenty years great interest has been awakened in this State in collecting genealogical and family histories. Many of these histories have been published in essays, journals and books, including five, six and even seven generations. A careful examination of these histories presents a class of facts precisely similar to those obtained from town records. The first family started with a goodly number of children, and the families continued to multiply in each generation till you reach the two last, when the average number of children in each family is found to diminish rapidly. The families composing the present generation, in these genealogical histories, will average, at most, only three or four children each.

Still there is another medium of testing the increase of population. All the cities, and some of the large towns in the State, publish annually a report of the births, marriages and deaths, which occur respectively in their several places. Boston reports, for 1865, 5,275 births; 3,575 foreign, 1,641 American, and 60 not stated. Deaths, 4,651; foreign, 1,398, and American, 3,143. Here the whole number of births exceed the deaths by only 734. But the deaths of Americans exceed the births by 1,502; and, if only three-fifths of the American-born reach adult life, that makes the loss still greater. That is a loss, in one year, of over two thousand persons, by death, to the natural increase in population. The census of Boston, in 1865, reports the American population at 126,304, and the foreign, 66,020. The former class, 126,304, have 1,641 children, while the latter, 66,020, have 3,575—that is, one-third foreign have more than twice as many children as two-thirds American, equal to six times as many children for the same population. Lowell reports present similar statistics. There were, in 1865, 100 more deaths than births among the Americans. The foreign population here was found to have more than four times as many children for the same inhabitants. From careful examination, the Irish are found, generally, to have, on an average, about three times as many children as the Americans. In many of the country towns, where the population is entirely, or mostly, made up of Americans, the number of deaths exceeds that of the births.

There is still another mode of viewing this subject, by way of comparison. There is what is called a birth-rate in every community, or nation—that is, one birth every year to so many inhabitants. The following table presents what has been found, for many years, the birth-rate in: Saxony, 25.98; Prussia, 26.50; Austria, 26.18; Sardinia, 27.82; Norway, 31.64; Denmark, 32.28; Hanover, 32.66; Sweden, 32.39; Bavaria, 29.22; Netherlands, 30.00; England, 30.06; Belgium, 34.35; France, 37.16.

In Massachusetts the birth-rate has ranged, for many years, from 34.00 to 40. If the American population is separated from the foreign, this birth-rate will not make so respectable an appearance. In 1864 this birth-rate, with the native Americans, was only 1 to 66 persons, and for several years previous it falls but little less than that number. For any community or nation to be in a prosperous and growing state, the birth-rate should be 1 to 30; once Massachusetts came up to this standard, but now it has fallen less than half that. This downward course commenced long before the war broke out, and we apprehend that the return of peace will not much amend the matter. Neither was there any unusual mortality in 1864, or any previous year. It must be obvious, from the facts already presented, that there is operating, to produce this degeneracy, an agency more effective and permanent than war, or any temporary disease. If this gigantic evil is ever to be remedied, the causes must be understood. If the deaths exceed the births every year—if all married families average only between two and three children each, and these diminish in each successive generation—if only three or four fifths, even, of these live to reach adult life; if, moreover, large numbers shall see

fit to live a single life (and that number relatively increasing every year), it is plainly evident that the native American stock, in the "Old Bay State," will rapidly diminish, and, comparatively, at no very distant day, *must run out*. Is it possible that the best stock (the Puritan) the world ever saw, under what would be considered the best family training, the highest order of educational influences, and the purest religious instruction, should thus *run out*, and give place to a people of foreign origin, with far less intelligence, and a religion entirely different? Was there ever in the whole history of the world a tribe, a race, or a nation, blessed with such an ancestry, with such advantages, with what should be such glorious prospects, that met such a fate? What cause, or what causes, could ever possibly bring about such disastrous results? Is it war? is it pestilence? is it famine? is it disease of any kind? No; the whole explanation may be summed up briefly under two heads:—1st, *The physical degeneracy of females*; and, 2d, the settled determination among a large portion of them in married life *to have no children, or a very limited number*. The first cause has been accumulating about half a century, but the second is of modern origin. Both causes result from the positive violation of the great laws of life and health, as well as the express teachings of Revelation. How sad and humiliating such an acknowledgment! No language can adequately portray the terrible effects which have already resulted from these violations of law, and no imagination can fully comprehend the nature or extent of the disastrous consequences which are yet to follow in the same train. Where in the whole range of politics, education, philosophy and religion, is there a theme which, in the magnitude of its bearings, can present stronger claims for exposure, for discussion and reform—with particular reference to New England—than this very subject?

MASSACHUSETTS MEDICAL BENEVOLENT SOCIETY.

THE annual meeting of the Massachusetts Medical Benevolent Society took place on Thursday evening, the 20th inst., at the house of Dr. H. W. Williams, Arlington Street. The attendance was unusually full, and much interest was manifested in the condition and prospects of the Society. The meeting was called to order by the Vice President, Dr. WILLIAMS, who alluded in a feeling manner to the great loss the Society had sustained in the death of its President, the late Dr. GOULD, under whose wise council and management it was becoming more widely known and appreciated. The following officers were elected:—*President*, Dr. J. Mason Warren, Boston. *Vice President*, Dr. H. W. Williams, Boston. *Secretary*, Dr. A. D. Sinclair, Boston. *Treasurer*, Dr. Francis Minot, Boston. *Trustees*, Dr. W. B. Morris, Charlestown; Dr. C. E. Ware, Boston; Dr. C. G. Putnam, Boston; Dr. Calvin Ellis, Boston; Dr. John W. Graves, Chelsea; Dr. Anson P. Hooker, E. Cambridge; Dr. Fitch E. Oliver, Boston; Dr. Benj. E. Cotting, Roxbury; Dr. George Hayward, Boston.

The Treasurer reported that the receipts during the year amounted to \$440.34, the expenditures to \$67.31. Two hundred dollars were also invested. The property of the Society amounts to \$4,921.30, all which is invested in United States stocks, or deposited in Savings Banks.

After the adjournment of the meeting, the members, together with a large number of invited guests, including ladies, were most hospitably entertained by Dr. Williams. Besides many eminent physicians of this city, we noticed several distinguished practitioners from the vicinity of Boston. The evening was most agreeably spent in social intercourse, varied by some charming music by an amateur quartette; and towards the close of the evening an elegant entertainment was

served. A more agreeable and successful method of bringing the claims of the Society to the notice of the profession could not have been devised, and we hope that its fruits will soon be evident in the addition of many names to the list of members.

The funds of the Society are not yet sufficient to warrant more than a limited expenditure in charity; indeed, it has been considered expedient to allow the property to accumulate, by investing almost the whole of the income up to the present time. We trust, however, that the great importance of a Society which will extend a helping hand to the unfortunate members of our profession, or their families, will be made obvious to the public, and that the Massachusetts Medical Benevolent Society will soon be in a position to extend a helping hand to our suffering *confrères*. Ours is a profession of very inadequate remuneration to the great majority of practitioners, who rarely leave more than a bare subsistence to their families, even if their lives have been prolonged beyond middle life. When cut off in their prime, their widows and children are not unfrequently left destitute. We appeal with confidence to the community for the means of relieving the wants and the sufferings of a class to whose devotion and skill mankind is so largely indebted.

DR. HENRY W. RIVERS, of Providence, late Surgeon U. S. Volunteers, has been brevetted Lieutenant-Colonel, to date from March 13, 1865, for faithful and meritorious services during the war.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 27th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	48	38	86
Ave. mortality of corresponding weeks for ten years, 1855—1865	40.4	36.2	76.6
Average corrected to increased population	00	00	84.13
Death of persons above 90	0	0	0

BOOKS RECEIVED.—A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S., &c. Sixth American from the Eighth and Revised London Edition, with Notes and References to American Decisions. By Clement B. Penrose, of the Philadelphia Bar. Philadelphia: Henry C. Lea. 1866.—A Practical Treatise on Diseases of the Skin. By J. Moore Neligan, M.D., M.R.I.A., &c. Fifth American from the Second Revised and Enlarged Dublin Edition. By T. W. Belcher, M.A., M.D., Dub., &c. Philadelphia: Henry C. Lea. 1866.—A Handy-Book of Ophthalmic Surgery, for the use of Practitioners. By John Z. Laurence, F.R.C.S., M.B. (Univ. Lond.), &c., and Robert C. Moon, House-surgeon to the Ophthalmic Hospital, Southwark. With numerous Illustrations. Philadelphia: Henry C. Lea. 1866.

MARRIED,—In Cincinnati, Oct. 18th, Dr. B. Addison Sawyer, of Haverhill, Mass., to Miss Lizzie M. George, of Cincinnati.

DIED,—In Gloucester, Oct. 19th, Dr. Joseph S. Barber, 63 years 6 months.—In Cincinnati, 20th inst., of cancer, Brig.-Gen. C. S. Tripler, Surgeon U.S.A., aged 60. Dr. Tripler was Medical Director of the Department of the Ohio.

DEATHS IN BOSTON for the week ending Saturday noon, Oct. 27th, 86. Males, 48—Females, 38. Accident, 1—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 1—bronchitis, 3—cancer, 3—cholera morbus, 2—consumption, 18—convulsions, 1—croup, 1—dropsy, 2—dropsy of the brain, 5—drowned, 1—dysentery, 1—scarlet fever, 3—typhoid fever, 7—hemorrhage, 1—disease of the heart, 8—hernia, 1—infantile disease, 2—congestion of the lungs, 1—marasmus, 4—old age, 4—paralysis, 2—peritonitis, 1—puerperal disease, 1—scrofula, 1—smallpox, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 25—between 5 and 20 years, 9—between 20 and 40 years, 17—between 40 and 60 years, 20—above 60 years, 15. Born in the United States, 53—Ireland, 23—other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 15.

A CASE OF OVARIAN TUMOR. OPERATION AND RECOVERY.

By OSCAR C. DEWOLF, M.D., Northampton, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Mrs. —, of this town, consulted me in June last, with the following history:—Age, 22; married twice; miscarried April, 1862. In August, 1864, she supposed herself pregnant again; the abdomen enlarged rapidly, and she suffered considerable pain in the right iliac region. Aside from this, her gestation progressed regularly, and she was delivered of a healthy child April 21st, 1865. The abdomen was enormously distended, and after her confinement the distension was only partially relieved. Her general health had not been very good for the twenty months previous to her visit. She had suffered from an intractable tertian ague, and an occasional severe pain in different parts of the abdomen, which had required prompt treatment by fomentations and anodynes. The abdomen was regularly distended, without inclination to either side; no solid mass could be detected. The uterus was normal, and the catamenia were regular.

She insisted upon an operation, and after apprising herself and her friends of the danger she was incurring—as the adhesions were probably extensive—encouragement was given her that the removal of the tumor would be attempted. She made all arrangements for a fatal result—sent her babe to her parents in Vermont, commending it to their care, prepared her burial clothes, and approached the operation with a fortitude almost unparalleled.

After a few days preparation of rest, warm baths, &c., the operation was done August 21st, assisted by the medical gentlemen of this town. The patient was brought under the influence of ether, in a temperature of 85° Fahrenheit, and an incision five inches in length through the abdominal walls revealed the tumor, moderately adherent anteriorly. Twenty pounds of fluid were removed with a trocar, by turning the patient upon her side and passing the hand into the abdomen. Four or five small cysts were found at the base. The adhesions to the stomach, liver, right kidney and uterus

were very firm, and great force was required to rupture them. The peduncle was on the right side, not long, but very broad, and was tied by transfixing with a double thread of silk, tying upon both sides; the ligatures were cut close off and returned within the abdomen. There was free bleeding from the broken-down adhesions, which subsided after exposure for a little time to the air. The blood was removed by warm sponges, and the abdomen closed by three silver-wire sutures passed through the peritoneum, and by three superficial ones of the same material. The patient was put to bed, and flannel cloths wrung out in warm water were placed upon the abdomen and covered with oiled silk, and a previously prepared bandage snugly applied. She complained of a distressing nausea for the first thirty-six hours, and vomited several times. Only small bits of ice were taken by the mouth. Injections of six ounces of beef-tea, with sufficient amount of McMunn's elixir to ensure rest, were given every six hours. The bladder was evacuated by catheter four times every twenty-four hours. On the third day she was permitted to swallow half an ounce of beef-tea every three or four hours; the fomentations and injections of beef-tea were continued; the opium was omitted. On the fifth day she was menstruating, ten days prematurely. She was suffering from an irritative fever; pulse 125; the region of the stomach was very sensitive, and complaining of nausea. Vomited two or three times. The abdominal incision had closed, and the sutures were all removed. No abdominal distension. Opium again added to injection. Her symptoms gradually amended after the sixth day, and from this until the fifteenth day her progress towards recovery was marked and uninterrupted.

On the fifteenth day, she complained of pain in the region of the ligated pedicle. Abdomen slightly tympanitic, and very sensitive over the right iliac region. The facial expression was bad; lips thin, pale and separated; forehead corrugated. Pulse 125, feeble and irregular. Perspiring freely. Stomach quiet. She was ordered port wine with beef-tea, all she could take by the stomach; with three grains of sulphate of quinine, thirty drops of McMunn's elixir of opium, in six ounces of beef-tea, every six hours by injection. She again rapidly improved, and from this time has given me no anxiety. On the thirty-fourth day she was about her house.

Oct. 3d, she left town to visit her friends in Vermont, perfectly recovered.

Northampton, Mass., October 8th, 1866.

ARTIFICIAL LIMBS.—The Medical Department of the Army, up to May 11th, 1866, had furnished to disabled soldiers the following artificial limbs:—arms, 2134; legs, 3784; hands, 144; feet, 9; other apparatus, 104; at a total cost of \$357,728.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 264.]

WE see here that those who live at a distance from marshes or bodies of water may feel the influence of their presence by means of fogs and vapors; and also may by their daily occupation be obliged to expose themselves to unhealthy influences at a distance from their homes, or by changes of place may experience great changes of temperature.

Montgomery, Ala., where this disease appeared in 1848, is situated on a bend in the Alabama river. An amphitheatre is formed by the hills which are in the back part of the town and circle round to the river on either side. The land on the opposite side of the river is alluvial, and is often overflowed; above the city, on the same side, are prairie lands. Thus a part of the city is on low land in the immediate neighborhood of inundated and flat land; a part is also elevated, well drained and dry. About 250 cases occurred, and only 100 of these were above the base of the hills.*

During the late epidemic, a few cases have been recorded in which the situation of the places where this disease occurred was noticed.

Dr. J. B. Upham gives a very full account of the circumstances in which the subjects of the epidemic at Newbern were placed. The town of Newbern is described as "built on a flat and sandy soil, raised but a few feet above the water. The country around is level, alternating with sandy plains and swamps for the distance of a mile or more from the outskirts of the town, beyond which begin the endless pine forests, almost impenetrable, with marshes and tangled undergrowth." The troops were protected partly by tents and partly by barracks. The latter "were built late in the autumn. They were made of green stuff—hard pine mostly—the logs being taken newly cut from the forest, or drawn out from the water, where they had been lying for a few weeks, sawn into joists and boards, and used in the fabrication of all parts of the building. Thus constructed, they were necessarily cold and damp, and redolent of pitch and paludial moisture." He describes the manner in which the barracks were built and the internal arrangement, and then says:—"In the best of circumstances it will be seen, the supply of air is entirely inadequate and the ventilation imperfect; while light and warmth, owing to the projection of the bunks, cannot be generally diffused throughout the apartment." The regiments which suffered most were those recently enlisted and that were quartered in the barracks. "The 44th (Mass.), which suffered most, was nearest the bank; quite near the camp lay a couple of marshy bogs, small in extent, through which flowed a sluggish stream to the river." Some cases occurred also among the troops quartered in tents, but there were only a few such.†

* Dr. Ames, *American Journal of Medical Sciences*, vol. xvii.

† *Boston Medical and Surgical Journal*, vol. lxxvii.

Dr. Robert Burns says:—"The first point requiring consideration is the hygienic condition of the dwellings and the locality in which patients reside." He then mentions these circumstances with regard to the residence of his first case, an Irishwoman, 36 years old, who lived in a frame house without any cellar; on one side of the house there was a lane with very imperfect drainage, having at all times in its deep gutters stagnant water. Hog-pen and other outbuildings were in position close to the house. On the lower story one room was occupied as a vegetable store and grocery, the other as a kitchen. The second case reported was that of a woman who lived near the first one, in a brick building, very damp, with water in the cellar. His third case resided in a low, wet situation, and had exerted herself in taking care of several fatal cases of the disease about 150 feet in the rear of her house. The fourth case was that of the brother of the second, and he was with his sister much during her sickness.*

Dr. Stillé reports the case of a young man, who resided in a healthy situation and was employed in a wholesale dry-goods store; nothing unhealthy seems to have been connected with his business.†

Prof. J. S. Jewell, of Chicago, gives a brief account of the disease as it appeared in Williamson County, Ill. He describes that portion of the State as generally level and somewhat low, though occasionally broken, and furrowed by sluggish streams, which are frequently bordered by extensive alluvial bottoms, with marshes interspersed here and there, and as a general thing heavily timbered, except when removed for the purposes of agriculture or interrupted by occasional oak openings, or barrens and small prairies.‡

In nearly every instance above recorded, and which are the only cases where the nature of the locality in which the disease occurred has been mentioned, lakes, rivers, swamps and low ground likely to be inundated, or damp houses with water in the cellars are noticed as found in the places where the disease appeared. Can it be doubted that such situations are favorable to its prevalence?

The influences, then, which have been recognized as causes of this disease are—unusual fatigue, which seems to have a peculiarly powerful effect on soldiers lately enlisted; all debilitating influences; over-crowding in badly ventilated apartments; want of cleanliness; sudden variations of temperature, especially when combined with damp and wet weather; a situation near marshes or considerable bodies of water, and lack of proper drainage. Contagion has but little influence, except, as previously stated, under very favorable circumstances. Malaria has been mentioned by some observers; but if they mean that condition of the atmosphere which causes periodical diseases, and not a peculiar influence, *sui generis*, upon which this epidemic depends, there is no evidence of its existence.

* American Journal of Medical Sciences, April, 1863.

† Transactions of the Illinois State Medical Society, 1864.

‡ Ibid, July, 1864.

Undoubtedly an epidemic condition of the atmosphere is the principal cause of this affection. The other causes do not all exist at the same time, and sometimes none of them can be discovered; and, again, most of them may co-exist without giving rise to this peculiar disease. We must, then, refer it to some hidden and hitherto undiscovered cause operating upon all and producing the disease only in those most susceptible to its influence, or who have been most exposed to the predisposing causes, and that cause has been called "an epidemic condition of the atmosphere," which will answer well enough until its true nature is discovered. Whatever this influence is, it has frequently affected other diseases, assimilating them more or less to this one.

Dr. Comstock says, with regard to the epidemic which occurred in Rhode Island in the early part of this century:—"It has a great aptitude to combine with other diseases, and even to modify and alter those of the most stationary kind, as consumption. It has been known to combine with bodily injuries."*

Dr. Hale says, "It influences the nature of all diseases."†

Dr. Miner remarks:—"For eight or nine months it was difficult to find a case of acute disease that did not partake of the epidemic constitution, under whatever head it might be nosologically classed."

Prof. de Rienzi says that almost all the inhabitants of Mignano, in February, 1840, were affected by the epidemic influence, and suffered from giddiness, lassitude and great depression of spirits.‡

At Gibraltar, in 1844, both before and during the epidemic of meningitis, it was noticed that in indisposition from any cause, there was a tendency to headache, more or less severe; the occiput being oftener than usual the seat of pain, and the muscles of the back part of the neck being also frequently affected with aching.§

Dr. Nivison says that this disease "impressed its own character on other diseases, so that a decided typhoid tendency was visible in almost all diseases." He also mentions that it appeared in one case during an attack of mumps. The mumps disappeared, and returned after recovery from this disease.||

At New Orleans, January, 1850, the negroes were principally affected, yet among the whites several patients presented strange head symptoms.¶

I have found no notice of this tendency to influence other diseases during the late epidemic, though in a few cases persons otherwise healthy have been troubled with severe headache.

NATURE.

Cerebro-spinal meningitis is usually considered a disease of de-

* Medical Repository, New Series, vol. iii.

† Philadelphia Journal of Medical and Physical Science, vol. i.

‡ Medical Examiner, New Series, vol. i.

§ Dr. Gillkrest, London Medical Times and Gazette, vol. xxxiv.

|| New York Journal of Medicine, September, 1849.

¶ Fenner's Southern Medical Reporter, vol. ii.

bility. The name is, perhaps, unfortunate, for there is not a simple inflammation of the meninges; indeed, sometimes they are not in the least affected, the force of the disease being expended upon other organs.

This disease seems to be dependent, at least in part, upon a change in the character of the blood. What the change is, we cannot say; but we know it exists, for we see its effects.

In a large majority of the cases where the condition of the blood was noticed, it was much more fluid than natural and of a very dark color; where clots existed they were unusually soft. Moreover, similar morbid appearances were found in different parts of the body, as the brain, lungs, heart, abdomen and glandular structures; in each of these there were marks of inflammatory action; they were not all found in the same person, but in one there was effusion of lymph in the cranium, coating the membranes and penetrating into the ventricles; in another, the lungs were inflamed, as in pneumonia, and in others lymph was found in the pericardium surrounding the heart; again, the intestines exhibited marks of inflammation and even ulceration, or the glands—the parotid, the lymphatic and mesenteric glands—were inflamed and even suppurated.

Now here are different organs, situated in distant parts of the body, affected in almost precisely the same manner. Evidently the cause of these changes, whatever it may be, must exert an influence, direct or indirect, wherever the diseased action is found. The blood and the nervous influence, so far as we know, are the only agents which can do this. We can realize that blood whose visible character is so much changed as is the case in cerebro-spinal meningitis, may produce an abnormal influence. The derangement in the nervous power we do not so easily recognize nor so fully understand, yet it is very reasonable to suppose that it coöperates with the abnormal blood in producing the changes referred to. The tissues may, doubtless, by their condition be so circumstanced that in one person one organ, and in another person some other organ may be first affected; they are predisposed by previous disease, hereditary influence, the influence of occupation, one part being excited and overworked, while another is allowed a larger proportion of rest, or by the peculiar epidemic condition of the season, to yield more readily to the exciting cause found in the morbid blood. And a change having commenced, they may react on the blood so as to perpetuate its diseased condition.

Paget says:—"We may speak much less equivocally of the influence of the state of the blood itself in causing inflammation; for there can be little doubt that a very great majority of the so-called spontaneous or constitutional, as distinguished from traumatic inflammations, have herein their origin. In all these cases local inflammations are the external signs of the general affection of the blood.

"If it be asked why a morbid material is determined to one part

or tissue rather than another, or why, for example, the skin is the normal seat of inflammation in smallpox, the joints in rheumatism, and so on; I believe we must say that we are on this point in the same ignorance as we are concerning the reason why the materials of sweat are discharged at the skin, those of urine at the kidneys. We cannot tell why these things are so, but they are familiar facts, and parallel with what I here assume of the incorporation of the morbid materials derived from the blood."

It is worthy of notice, however, that in many cases where seemingly different organs have been affected, it was the serous membrane which suffered most. If it could be proved that that membrane was alone affected, the argument with regard to the influence of the blood would be weakened; but other portions of the organs besides the serous lining have usually been found changed: in the brain, the cerebral substance; in the lung, the parenchyma; in the heart, the muscular fibre; in the stomach and intestines the mucous membrane, have been found softened or otherwise diseased.

That there is inflammation of the brain or its membranes, the symptoms and *post-mortem* appearances indicate; and so likewise when the disease attacks especially the lungs, there are evident signs of inflammation; the swelling, pain and suppuration in the vicinity of the parotid and lymphatic glands, or in the neighborhood of the joints, would under other circumstances be called inflammation.

It may be objected that the disease is not active enough to be inflammatory; possibly not, as that term was formerly understood, but now it is admitted that it may coexist with a general decrease in vital power, with debility, in fact.

Dr. Tanner says, in the last edition of his *Practice of Medicine*:—"In many instances of inflammation there is depressed nervous power and impaired action of the heart."

Mr. John Simon says:—"Further, the quality of the pulse during inflammation, and generally that look of vehemence in the febrile process which depends upon the circulatory system taking an active part in the production of symptoms, will be almost unlimitedly influenced by the more or less vigor of the patient. With weakened nerve power, with feeble heart structure, there can be no strong, hard pulse; nor can the pulse be otherwise than soft or small when the bloodvessels are half emptied of their contents."*

Paget remarks:—"So far, then, as the proper substance of the inflamed part is concerned, there appears to be decreased action; that is, decreased formation. There may be, indeed, an increased absorption; but this is also, in one sense, characteristic of decreased exercise of vital force; since all absorption implies a previous degeneration of the part absorbed. Nor can we justly call this, in any sense,

* See Holmes's Surgery.

‘increased action,’ till we can show how absorption is an action of vessels.”

“From these considerations we may conclude that the productive part of the inflammatory process is not declaratory of the exercise of a large amount of formative or organizing force; and this conclusion is confirmed by observing that development, which always requires the highest and most favored exercise of the powers of organic life, does not occur while inflammation lasts. The general conclusion, therefore, may be as well from the productive, as from the destructive process, that it is accomplished with small expenditure of vital force; and that even when large quantities of lymph are lowly organized, such an expression as ‘increased action’ cannot be rightly used, unless we can be sure that the defect of the formative power exercised in the proper tissue of the inflamed part, is more than counterbalanced by the excess employed in the production and low organization of lymph.”

Dr. Chambers, in his book entitled “Renewal of Life,” also advocates that all diseased action is diminished action, that there is no increased vitality in parts abnormally changed.

If this disease is, as has been supposed, dependent upon an altered condition of the blood, whether produced by the introduction of a poisonous principle from without, or by a change within itself in its usual constituents, it would not be reasonable to expect this altered blood to sustain as great vitality and as high action as healthy blood; debility might be expected.

We have, then, evident marks of local inflammation, and there is nothing in this naturally opposed to debility as the two terms are now understood.

It may be concluded that cerebro-spinal meningitis is a disease of debility, accompanied with or complicated by local inflammation, caused by an altered or morbid blood. What the alteration is, how the morbid material is communicated to that fluid, whether it is cryptogamic, as has lately been discovered with regard to the cause of measles and of periodical fevers, or whether it is animal or gaseous, we do not know. Probably the condition of the tissues and the nerves also operates largely in producing the disease.

Cerebro-spinal meningitis has been considered by some identical with influenza. But the symptoms are not the same; coryza is wanting, and sneezing is not general in cerebro-spinal meningitis; the head symptoms are not so severe in influenza; the rate at which they travel over the country is entirely different; influenza is rapid, passing quickly from one place to another, and not remaining long anywhere; cerebro-spinal meningitis, however, passes from place to place with much less rapidity, and sometimes remains so long as to become almost endemic. Influenza, also, is a slight affection, when the small number of deaths in proportion to the number attacked is considered; and the fatal cases are found principally among the very young or

very old. Just the reverse of this is seen in meningitis—it is very fatal among all classes and ages.

There is more similarity between the disease we are considering and typhus fever; indeed, many have concluded that it is only a species of that disease, with determination to the head.

The accompanying table will show at a glance wherein these diseases are similar and dissimilar.

<i>Symptoms of Typhus resembling Cerebro-spinal Meningitis.</i>	<i>Symptoms of Typhus not resembling Cerebro-spinal Meningitis.</i>	<i>Symptoms of Cerebro-spinal Meningitis.</i>
Sometimes prodromes; often commences suddenly.	Eruption rarely absent. Eruption appears on the 4th to 7th day.	Occasionally prodromes; usually commences suddenly. Eruption often absent. Eruption appears on the first or second day. Purpura and vibices. Herpes, especially on lips. Tongue occasionally dark colored.
Purpura and vibices. Herpes on lips and elsewhere. Tongue generally black or brown.	Occasionally nausea, rarely vomiting. Delirium seldom before end of first week. Delirium often furious.	Nausea and vomiting not uncommon. Delirium early, often on first day. Delirium usually talkative and quiet. Delirium becoming coma much earlier. Pupils usually dilated.
Pupils sometimes dilated.	Delirium becoming coma on ninth or tenth day. When delirium sets in, pupils contracted. Headache ceases when delirium commences.	Headache continues after delirium begins. Tenderness of surface. Subsultus tendinum, tho' not so common. Convulsions earlier.
Tenderness of surface. Subsultus tendinum.	Convulsions not earlier than seventh day.	Rigidity of muscles.
Rigidity, especially of the flexors.	Opisthotonos very rare. Rarely inflammation of the brain. Skin usually dry.	Opisthotonos common. Inflammation of the brain common. Skin not often very dry. Pulse 80 to 140. Pulse generally irregular. Great prostration. Usually constipation; occasionally diarrhoea; stools often dark. Urine sometimes diminished.
Pulse 80 to 140.	Pulse generally regular.	Sometimes albuminuria. Sometimes complicated with pneumonia. Complicated with sore throat. Inflammatory swellings and buboes, especially of the parotid and submaxillary.
Great prostration. Usually constipation; occasionally diarrhoea; stools often dark. Urine often diminished.	Amendment on tenth to sixteenth day. About one in five dies. Fatal between twelfth and twentieth day, sometimes on first day.	Complicated with sore throat. Inflammatory swelling of the parotid, lymphatics about the neck and in other places. No stated period of amendment. About one in three dies. Fatal earlier, between second and sixth day, not unfrequently on the first day. Moderately contagious.
Sometimes albuminuria. Sometimes complicated with pneumonia. Accompanied by sore throat. Inflammatory swellings and buboes, especially of the parotid and submaxillary.		
Moderately contagious.		

*Pathology in
Typhus resembling Cerebro-
spinal Meningitis.*

Blood fluid and dark.

Lungs rarely healthy; usually hypostatic congestion, sometimes amounting to consolidation; both equally affected; œdema at times.

Spleen enlarged and softened.

Liver softened.

*Pathology in
Typhus not resembling
Cerebro-spinal Meningitis.*

Pneumonia not common, 42 in 288 cases.

Occasionally recent pleurisy.

Not mentioned.

Rarely signs of inflammation in heart.

Liver not enlarged.

Peyer's glands healthy; no signs of inflammation in the intestines.

"*Post mortems* show that inflammation of the brain or its membranes rarely if ever occurs, even as complication, in typhus."

*Pathology in
Cerebro-spinal
Meningitis.*

Blood fluid and dark.

Lungs, when affected, showing hypostatic congestion; sometimes exudation of blood into their parenchyma.

Pneumonia not so common, except when that form is epidemic.

Pleurisy not observed.

Effusion of lymph into the pericardium.

Marks of inflammation in heart.

Spleen enlarged and softened.

Liver softened.

Liver enlarged.

Inflammatory spots on the intestinal mucous membrane; Peyer's patches enlarged and sometimes ulcerated, though not as in typhoid fever.

Principal and most frequent lesions show inflammatory action within the cranium and spinal canal.

REVERSED POSITION OF LIVER, SPLEEN AND HEART.

[Communicated for the Boston Medical and Surgical Journal.]

Soon after the commencement of lectures in the Albany Medical College, a colored subject was received at the dissecting room. The weather being very warm, the body was put in Goadby's solution, the cavities of the abdomen and thorax being merely pierced to allow the gas to escape. After a few days it was deemed best to remove the viscera of both cavities, to prevent decay and putrefaction. After opening the abdominal cavity, I removed the intestines from below upwards, beginning with the rectum. When I came to the liver and spleen, I found their position reversed—the spleen on the right and the liver on the left side. The large lobe of the liver and the gall bladder were situated entirely on the left side, and the small lobe on the right side of the large lobe. The liver was otherwise normal, the parts and position only being reversed. The spleen was also normal. On opening the thoracic cavity, I found the heart also reversed, the apex pointing to the right, and situated about three or four inches from the centre of the sternum. The cavities of the heart were also reversed, the right auricle being on the left side, and the other cavities in the same way reversed. The ascending vena cava crossed over to the left and entered as usual. The aorta twisted round so as to descend in nearly the same position. I regret that the parts were too much decayed to admit of injection and pre-

paration as a dried specimen. Deceased seemed to have attained about the 22d year. The body was well developed, and nothing unusual could be found externally. Nothing could be ascertained about the previous history of the case.

G. TRESKATIS, M.D.,
Demonstrator of Anatomy, Albany Medical College.

CASE OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.]

AT 10, A.M., on the 3d inst., I was called to visit a woman in a house on Hanover Street, in this city, and as there are some interesting points in the case, I give the following brief report of it.

Elizabeth Gardner, æt. 27, was taken ill at 5 o'clock, on the morning of the 3d, with vomiting and purging. Her husband had been taken ill in a similar manner on Sunday, and died on Tuesday, the 2d. (Dr. Ayer, I understand, was in attendance.) Mrs. Gardner attended him through his illness, but I could not learn that she had any diarrhœa, or other premonitory symptoms up to the time of attack, which was quite sudden. The vomiting, though distressing for a short time, was not profuse, and the same may be said of the alvine dejections, which indeed had entirely ceased at the time of my visit. Cramps, however, had supervened; her strength rapidly failed, and on my arrival she was on the verge of complete collapse; pulse at the wrist imperceptible, extremities cold, skin livid, nails discolored, burning pain and oppression at the præcordia, and jactitation.

I prescribed the usual remedies:—Tr. opii, grt. xxx.; spt. vini gall., ℥ ij. M. Ft. haust., rept. pro re natâ; friction, bottles of hot water, sinapisms, &c. For a time it seemed as though our endeavors might prove successful, but about noon she again began to sink, and died at 6, P.M., thirteen hours from the first attack of the disease.

Dr. Williams, who saw the patient with me, regarded the case as hopeless from the time we saw it, being of that type which experience has shown to be but little amenable to treatment.

The case is interesting from its similarity in many points to that of the late lamented Dr. Gould; the slight dejections and scanty vomitus (which, however, were of the characteristic appearance), the temporary and fallacious appearance of improvement, and the utter inutility of treatment of the most energetic kind, to prevent the approaching collapse, were similar, and testify to the extreme malignity of the disease.

Could the woman have contracted the disease by attendance on her husband? This supposition would necessitate our acceptance of a much shorter period of incubation than that generally supposed, unless we admit that the disease, if contagious at all, is so during the preliminary stage, and before serious symptoms manifest themselves.

I could not ascertain that either the woman or her husband had been in any way exposed to contagion.

3 North Square, Boston.

JOHN RYAN.

Bibliographical Notices.

Medical Diagnosis, with special reference to Practical Medicine. A Guide to the Knowledge and Discrimination of Diseases. By J. M. DAcOSTA, M.D., Lecturer on Clinical Medicine and Physician to the Philadelphia Hospital, President of the Pathological Society of Philadelphia, &c. Illustrated with Engravings on Wood. Second Edition, revised. Pp. 784. Philadel.: J. B. Lippincott & Co. 1866.

THE early appearance of another edition of this work is satisfactory evidence that the popularity we predicted for it at the time of its publication, only two years ago, has been attained. It has everywhere met with a reception from the medical press and the profession which must be gratifying to the author, and has been adopted by the student of medicine as if prepared for him alone. Nearly one hundred pages, with twenty-two wood-cuts, have been added in the present edition, principally to the chapters on Diseases of the Brain, of the Larynx, and on the Urine and on Parasites. This is nearly all new and important material, and enhances the value of the volume materially. There are, however, one or two portions which are strikingly inferior to the general character of the book, such as the chapter on Skin Diseases, which it would have been better to have omitted altogether. It is published in the same beautiful form as the former edition.

Manual of Materia Medica and Therapeutics. Being an Abridgment of the late Dr. Pereira's Elements of Materia Medica. Arranged in conformity with the British Pharmacopœia, and adapted to the use of Medical Practitioners, Chemists and Druggists, Medical and Pharmaceutical Students, &c. By FREDERIC JOHN FARRE, M.D., F.L.S., Lecturer on Materia Medica in St. Bartholomew's College, &c., assisted by ROBERT BENTLY, M.R.C.S., Professor of Botany in King's College, &c., and by ROBERT WARRINGTON, F.R.S., Vice President of the Chemical Society, &c. Edited by HORATIO C. WOOD, Jr., M.D., Professor of Botany, University of Pennsylvania, &c. With 236 Wood Engravings. Pp. 1030. Philadelphia: Henry C. Lea. 1866.

THIS is a very complex title-page, and is perhaps the best testimony that can be presented as to the value and variety of labor which has been expended upon this volume in its present state. The original work of Pereira was an exhaustive treatise, and will long remain the storehouse of learning from which our information on materia medica will be largely drawn. It was so large, however, that it had become almost a special cyclopœdia, and could not be well used as a text-book or volume of handy reference. After the death of its distinguished author, therefore, the editor undertook, with the assistance of the gentlemen whose names are associated with his own above, to reduce

it to a more convenient size by omitting all remedial agents except those strictly pharmacological, all of the latter which were not contained in the British Pharmacopœia, and all classifications except that upon which the work is based, viz., the chemical, botanical and zoölogical; at the same time abridging in many instances the original descriptions. In this way the book was cut down two thirds in size, in spite of the large number of additions by its able editors, and although no longer Pereira's great work, it made a very valuable manual for physician and student. In this form, however, it was in no way adapted to the use of the medical public in this country, and to make the labors of the British Editors available to us, Dr. Wood, of Philadelphia, has issued it as it now appears. The U. S. Pharmacopœia has everywhere been introduced, with its processes, and over one hundred notices of articles of *materia medica* have been added or substituted in its pages. Much of this new matter is of real value, and adds much to the character of the American Edition. It is profusely illustrated, although poorly in some parts, and is published in a handsome form. It will fill a place which no other work can occupy in the library of the physician, student, and apothecary.

On Spermatorrhœa; its Causes, Symptomatology, Pathology, Prognosis, Diagnosis, and Treatment. By ROBERTS BARTHOLOW, M.D., Professor of Physics and Medical Chemistry in the Medical College of Ohio; Lecturer on Clinical Medicine to St. John's Hospital, Cincinnati, &c. Pp. 112. New York: William Wood & Co. 1866.

THIS little book is a well-written and judicious essay on Spermatorrhœa considered under the above divisions, which we can recommend to the perusal of our readers. The valuable and practical instruction on treatment it contains will be found worthy of careful study by all who are consulted upon this neglected affection.

A Treatise on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera. By JOHN C. PETERS, M.D. Pp. 162. New York: D. Van Nostrand. 1866.

THE cholera is discussed in this last and perhaps best of the many volumes published this year upon this subject, under the following divisions:—Origin, Course and Distribution, Nature, Theories, Prevention, and Treatment. The author is a firm believer in the communicability of the disease, as will be seen by the following expression of his opinions, which he gives as those "maintained by the most experienced and scientific physicians of the times:—

"1st. That Asiatic cholera is both portable and communicable.

"2d. It is generally carried about by persons, ships, clothing and baggage.

"3d. It never affects the entire atmosphere of any one country, district, town, or village, and rarely that of the whole of one hospital, ship, or house; but only those parts of them into which it is directly imported.

"4th. That the quality of infectiousness belongs peculiarly, if not exclusively, to the matters which the cholera patient discharges by vomiting and purging.

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" 5th. That cholera discharges, if cast away without previous disinfection, impart their own infective quality to the excremental matters, or any more innocent filth with which they mingle in drains or cesspools, and wherever else they flow or soak, and to the gases and effluvia which these substances evolve; thus poisoning the air and subsoil water.

" 6th. That no amount of filth, imprudence, or diarrhœal disease, without the addition of this peculiar cause, will give rise to true Asiatic cholera in temperate climates.

" 7th. That if the cholera poison, by leakage or soakage from drains or cesspools, or otherwise, gets access, even in small quantity, to wells or other sources of drinking water, it will infect, in the most dangerous manner, very large volumes of this fluid.

" 8th. That the cholera poison affects, with equal virulence, everything in the nature of bedding, clothing, towels, and the like, so that the soiled linen of a single house in which there is a cholera patient may spread the disease over a whole district.

" 9th. That there is scarcely any limit to the extent which even a single case of cholera or cholérine may infect a whole neighborhood.

" 10th. The counteracting and remedial agents are simple and efficient. Whenever the disease has manifested itself, even in its slightest form, thorough disinfection must be enforced. With this single precaution no epidemic gives less excuse for any unmanly or excessive fear, since none seems to involve less of danger to those around.

" 11th. As cholera only affects the air of certain localities, there is not the slightest necessity for any of those general departures from the ordinary mode of life and diet which were formerly recommended. The golden rule is to live temperately, naturally, and well.

" 12th. Finally, no case of diarrhœa, cholera morbus, or dysentery, can be converted into cholera unless the patient has also been exposed to the peculiar infection of this disease."

In his review of the arguments cited against contagion, Dr. Peters says of the poisonous nature of the discharges:—

" The communicability of the disease does not correspond with the time when the dejections are voided; but is only developed a few days subsequently, and seems to be exhausted at the end of fifteen to twenty-one days. This peculiarity has been traced to the fact that the rice-water discharges only become poisonous after a while; for the first few days they are innocuous; then, as decomposition proceeds, they become morbid, and capable of re-producing the peculiar disease of which they were the product. And still more strangely, after a few days more, when decomposition has reached a farther stage, the contagious property of the evacuations ceases. These great facts account for the impunity with which careful and cleanly persons may wait upon those sick with cholera; for the mysterious and sudden outbreak of the disease, and for its equally sudden subsidence. These points have been proved, in the following ingenious way:—pieces of filtering paper, soaked in the rice-water discharges, have been given to mice, mixed with their food, and it was found that papers steeped in the very recent, and others dipped in the older discharges, proved alike harmless. But of thirty-four mice that ate papers impregnated with excretæ of an intermediate date, thirty be-

came sick, and twelve died; while the symptoms and appearances noticed after death, are declared to have been similar to those that are proper to cholera as it is seen in the human subject."

The reader will find this volume very interesting throughout, and the chapter on treatment particularly instructive.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 8, 1866.

INTRODUCTORY LECTURE TO THE WINTER COURSE AT HARVARD MEDICAL SCHOOL.

THE opening lecture of the winter course was delivered on the 7th inst., at the Medical College in Grove St., by Prof. Brown-Séquard. The occasion was one of much interest, as, although Prof. Séquard's name has stood for several years on the roll of teachers, untoward circumstances have kept him until now almost a stranger to the medical class. The great reputation of the lecturer called together a large audience, among which were some of the most distinguished cultivators of natural science in our neighborhood. Prof. Séquard was received with great enthusiasm by his hearers, and seemed not a little oppressed by the ardent manner of his reception. After a few modest words of acknowledgment, he entered at once upon his discourse, which was an essay upon the best methods of study for a student in the responsible profession which his hearers had elected to follow. As might have been expected, from the special direction which the lecturer's investigations have taken for years past, he greatly magnified the importance of physiological pursuits, as opening to the medical profession the true way to the only accurate knowledge of disease and its treatment. The time is not far distant, he said, when this treatment must be specifically based upon an exact knowledge of the physiological action of the organs implicated. He made an earnest appeal to his hearers to rise above the level of a merely professional standard in their studies, and to aim themselves to add each his contribution to the stock of truth. He urged a patient and constant exercise of the faculties of observation, encouraging them to believe that such exercise would develop powers which at first they could not have looked for, so that in time they would find themselves surrounded by new discoveries. He spoke of several of the intellectual faculties which would be found thus to grow by use, just as the muscles of a dancer or the wonderful dexterity of a juggler are developed by constant, unremitting practice.

Prof. Séquard proceeded next to urge upon his hearers the duty of courageous, independent judgment and investigation in their studies. In doing this he pointed out numerous ways in which they might be deceived, leading to physiological errors, of which many are still current in medical literature, but which any careful observer, gifted with a little common sense, might easily expose. Some of those which he mentioned are, too great readiness to admit as true statements put forth as such, notwithstanding they are contradicted by facts—the

ready acceptance of a theory, although incompatible with known facts—the too great submission to the authority of learned societies in support of statements having their sanction—and the omission of some circumstances greatly influencing the question at issue. Each of these sources of current errors he illustrated in a most instructive manner from established facts in the history of medicine.

Addressing himself especially to the students, Prof. Séquard again urged on each one the importance of depending on his own exertions in the study of his profession. He inculcated the great importance of active mental effort while they were hearing the lectures addressed to them, so that they might not be passive recipients merely of the words of others. Without such an effort, he said, the greatest genius in the lecturer could never do much towards the education of the student. In this connection he gave some excellent advice about methods of study. He urged the great value of direct physiological experiment on the lower animals of feeble sensibility, and vindicated such studies, for the important object for which they are pursued, from the charge of unnecessary cruelty. Although he disliked to appeal to so low a motive as the hope of professional success, he felt it was but just to say, that the most successful practitioners in the old world, particularly in Great Britain, had all been physiologists.

Another error which he felt it important to mention was the liability to deny the existence of facts because we cannot explain them. This he illustrated in a most interesting and curious manner.

Prof. Séquard's address concluded with some words of hearty encouragement to all, however much they may be absorbed in the active duties of an arduous profession, to hope that they may add something of value to the common stock of truth; pointing out a variety of subjects which might be greatly elucidated even by men whose whole time nearly is thus devoted.

We have given but a meagre outline of this most valuable discourse, which is worthy of being perpetuated in a less perishable form. We hope, for the advantage of the whole profession, it may be given to the world in print.

THE DECAY OF NEW ENGLAND.

THE following communication suggests a grave source of error in the article quoted in our last week's editorial. The prospect of the utter blotting out of the New England race, as there presented, was so startling, that we feel under great obligations to our friend for his correction.

MESSRS. EDITORS,—Permit me to point out what I conceive to be errors in the deductions drawn from the vital statistics of Massachusetts, commented upon in the interesting article of your last number.

The deaths among Americans are said to exceed the births among Americans more than nine thousand. In point of fact, I think children of foreign parents, when they are born, are classified as *foreign*, and when they die as *American*. In other words, the births on American soil are distinguished as to parentage, while the deaths are not. This, of course, deprives the figures quoted of any value as illustrating that line of inquiry.

I know of no way in which the percentage of children surviving the

first five years in families of American or foreign origin can be reached, but the experience of physicians in our large towns leads me to the belief that the difference would be found to be as striking as any of those referred to by the writer for the *New York Observer*. I think another fallacy may be found in the inferences drawn from an examination of family registers. To make the observation complete, a record of many contemporary families should be given. Some sturdy ancestor, with a dozen children, has transmitted enough of vitality in his stock to keep it alive for many generations, but how many of his friends and neighbors were equally vigorous is not shown. Certain it is, ever since the settlement of the country, family names have been continually disappearing. D.

APROPPOS to the above the following abstract from the Proceedings of the recent session of the British Association for the Advancement of Science, is interesting; we find it in the *Medical Times* and *Gazette* of September 29th. We shall look for the paper in full with much interest.

“ *On the Comparative Vitality of the Jewish and Christian Races.* By Dr. RICHARDSON. In this paper, which created considerable interest, Dr. Richardson proceeded to consider the following question:—“Whether the fact of race specifically modifies the vitality or the value of life of a people?” In the present instance they had a race living through centuries, often under great privations, intermarrying, taking in no new blood, and yet showing a higher vitality than other peoples. How was this, he asked. Was it race? Was it habit, manner, or custom? He would quote Mons. Boudin on this question, who said—“Here is a race which counts less marriages, a less number of children, and enjoys a longer duration of life.” Were these, therefore, the signs of a congenital superiority of organization, or of a more energetic *vis insita*? Although throughout Germany the Jews might be considered poor, yet their mortality was less than that of the Christians. The principal cause of this difference lay in the fact that the poor Israelites were always frugal and temperate. Seeking information from the learned statistician Legoyt, they found him expressing the following—‘Marrying earlier in life than the Christians, the Jews enjoy longer the conservative influence of matrimony; statistics having shown the injuriousness of celibacy as concerns the duration of life. The fecundity of their marriages being less, the Jews rear their children more successfully. They very rarely enter into occupations requiring hard labor, attaching themselves instead to pursuits of commerce, banking, science, literature, and public offices.’ Dr. Richardson’s own views on the question were that the Jews, though not by any means up to any grandly developed physical standard, enjoyed good health, and retained their primitive advantages by the force of surrounding conditions. In conclusion, he did not think their vitality arose from traditional superstition or special hygienic laws, but from temperance, faithfulness, and prudence.

“A gentleman pointed out that the Jewish nation was nowhere a hard-working class in a muscular point of view. They were singularly a brain-working people, and could not be put in comparison with other

nations not so situated. He considered that in that, to a great extent, would be found a solution to the problem of their peculiarly favorable vitality."

Weakly Children.—If weakly children are tided over infancy, the result, it may be said, will be an increase of sickly adults and degeneration of race. All breeders of animals throw aside bad specimens. The Spartans did not allow the father to dispose of his child as he thought fit, for he was obliged to take it to the tryers, who, if they found it puny and ill-shaped, ordered it to be carried to a sort of chasm under Taygetus; of this course Socrates in Plato approves. At Athens and Rome the infant at birth was laid upon the ground, and was abandoned to its fate if the father did not lift his child from mother earth, who was assumed to have claims upon its fragile body. The Romans were reproached by the Christian fathers for their inhumanity. "Which of you," says Tertullian, upbraiding the Gentiles in rude eloquence, "has not slain a child at birth?" Thus the right of a child to life was questioned at its very threshold, and he only won it after examination. Children were dipped, like Achilles, in cold water to harden, or to kill them, as the case may be. Through Christianity, through one of the leading races of mankind—the Jews—and through the manly sense of the Anglo-Saxons, we have been led to look upon children in another light, and be they weak or strong their lives are sacred in the eyes of English law. Experience has justified this policy. Great qualities of soul are often hidden in the frailest child. One Christmas-day a premature posthumous son was born in England of such an extremely diminutive size, and apparently of so perishable a frame, that two women who were sent to Lady Pakenham, at North Witham, to bring some medicine to strengthen him, did not expect to find him alive on their return. He would inevitably have been consigned to the caverns of Taygetus if the two women had carried him to Spartan tryers. As it was, the frail boy grew up into Newton, lived more than four-score years, and revealed to mankind the laws of the universe. If he had perished, England would not have been what it is in the world. In Paris one evening a puny child in a neat little basket was picked up: he had been left at the church door: the commissary of police was about to carry him to the foundling hospital, when a glazier's wife exclaimed: "You will kill the child in your hospital, give him to me; I have no children, I will take care of him." She cherished her boy, poor as she was, until some one, perhaps his father, settled a small annuity on his life, with which he was educated at the Mazarin College, where he displayed the early genius of a Pascal; it was D'Alembert, to whom we are indebted for a new calculus, for the grand introduction to the Cyclopædia, and for innumerable physical discoveries. He was offered 100,000 francs a year by Catherine of Russia, but refused to leave his mother by adoption—the glazier's wife—and his country. It would be easy to multiply instances, to prove how impolitic it is to try to take away life on the verdict of the most clear-sighted tryers. How false, then, is the policy of exposing children to those blind tryers, the pestilences which infest infant life in Europe? Let the little strangers have a fair chance; in their respect, "Be given to hospitality, and you may entertain angels unawares."—*Medical Times and Gazette*, from Dr. WILLIAM FARR, on the *Mortality of Children*.

New Brazilian Medical Journal.—A friend has submitted to our examination the first three numbers of a new medical journal, the publication of which was commenced at Bahia on the 10th of July last, under the title of *Gazeta Medica da Bahia*. It is published by an association of physicians, the immediate editor being Dr. Virgilio Climaco Damazio. It is printed in large quarto, two columns on a page, in large type, each number consisting of twelve pages, and is published on the 10th and 25th of each month. The *Gazeta* is specially interesting as being the first attempt at medical journalism in South America. The contents of the numbers in our hands show that the writers are fully conversant with the progress of medical science in other parts of the world. We find articles on Local Anæsthesia, Public Hygiene, Cholera, &c. Dr. Wucherer (a Corresponding Member of the Massachusetts Medical Society) has an interesting paper on a case of connection between the gall-bladder and urinary bladder, by means of which biliary calculi were passed by the urinary passage. The whole appearance of this journal is highly creditable to the originators, and we most cordially wish it success.

New Cupping Apparatus. MESSRS. EDITORS,—Enclosed you will find a drawing of a cupping glass or tube, with a scarificator combined. Wishing to promote suppuration in the tonsils of a patient, I made a silver tube adapted to the size of the diseased tonsils, fitting it to my air-pump with the ordinary valve. Within the tube I adjusted a sliding scarificator, controlled and fixed in place by a shaft passing through the cap of the tube, with a rubber follower on the shaft to prevent the ingress of air. The scarificator when prepared for use, is fixed, so that the distended skin and integument, when drawn into the tube by the exhaustion of air, will be brought in contact with the points of the lancets, which are plough-share shaped, and obliquely directed in order to give a freer flow of blood. After the puncture, the blades can be withdrawn for the free flow of blood.

As the instrument has met with the approval of all who have used it, I would recommend it to the profession generally, as specially adapted for oral and vaginal use. Respectfully,

San Francisco, Oct. 9, 1866.

ELTON R. SMILIE.

Prize of \$250 offered for the best Essay on the Etiology of Epidemics.—A gentleman well known to the medical profession offers the above prize for the best essay on the Etiology of Epidemics, the prize to be awarded by himself, together with the three Professors of Theory and Practice in the three Medical Colleges of the city of New York. Essays or monographs on the above subject, in competition for the prize, must be founded on accurately kept meteorological and sanitary records, in connection with equally exact records of the prevalence and specific character of diseases. Data must be supplied of an authentic character, by means of which epidemic seasons may be compared hygrometrically, thermometrically, barometrically, &c., with those which precede and follow them. Essays may be addressed to the Editor of the *Medical and Surgical Reporter* until January, 1868, enclosed in the usual way, with a motto and sealed envelope containing the same and the author's name.

Statistics of Paris.—From the first of April to the first of July of the present year, the number of births in Paris was 13,405, the number of males being 263 in excess of the females. Of the whole number, 9,601 were legitimate and 3,854 were illegitimate. During the same period 4,877 marriages were contracted. The number of deaths was 11,114, of which 5,780 were of males. Of the whole number, 5,139 were born in Paris, and 5,975 elsewhere. Average number of deaths, 122 per day.

Death of Dr. R. W. Gibbes.—Dr. Robert W. Gibbes died in his native city, Columbia, S. C., on the 15th ult., aged 57 years. He was widely known for his literary and scientific tastes. He lost severely by the burning of Columbia—his fine mansion, with its valuable collection of paintings, fossil remains, and geological specimens, falling a prey to the flames. He leaves a numerous family of sons, daughters, and grandchildren.—*Medical Record.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 3d, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	40	49	89
Ave. mortality of corresponding weeks for ten years, 1855—1865	36.9	37.0	73.9
Average corrected to increased population	00	00	79.85
Death of persons above 90	0	1	1

COMMUNICATIONS RECEIVED.—Malignant Disease of the Ovaries, &c., by Joseph H. Warren, M.D.—Purpura Hemorrhagica, Neuralgia, and other Complications, by N. L. Folsom, M.D., Portsmouth, N. H.—Proceedings of the Vermont Medical Society at its Fifty-second Annual Session; reported by the Secretary.

BOOKS RECEIVED.—Practical Therapeutics. By Edward John Waring, F.R.C.S., &c. From the Second London Edition. Philadelphia: Lindsay & Blakiston.—A Manual of Auscultation and Percussion. By M. Barth and M. Henri Roger. Translated from the Sixth French Edition. Philadelphia: Lindsay & Blakiston.

JOURNALS RECEIVED.—Medical Record, Nos. 16 and 17.—New York Medical Journal for October and November.—Medical and Surgical Reporter, Nos. 14-17.—American Journal of Medical Sciences for October.—Medical News and Library for October and November.—Buffalo Med. and Surg. Journal for October.—Chicago Med. Examiner for October.—Cincinnati Lancet and Observer for October.—The Cincinnati Journal of Medicine for October.—Medical Reporter, Nos. 15 and 16.—Nashville Journal of Medicine and Surgery for October.—Atlanta Medical Journal for October.—Southern Journal of Medical Sciences for November.—Richmond Medical Journal for October.—Pacific Medical and Surgical Journal for October.—L'Union Médicale, Nos. 113-124.—Journal de Médecine de Bordeaux for October.—London Lancet (reprint) for October.—Detroit Review of Medicine and Pharmacy for October.—Chemist and Druggist for October.—Druggists' Circular for October.—Boston Journal of Chemistry and Pharmacy for November.—Dental Register for October.—New England Medical Gazette for October.—University Journal of Medicine and Surgery, Nos. 1-4.—United States Medical and Surgical Journal for October.—American Eclectic Medical Review for October.—Curtis's Journal of Education for October.—Hall's Journal of Health for November.—The Herald of Health and Journal of Physical Culture for November.—Phrenological Journal for November.—Ophthalmic Review for October.

DEATHS IN BOSTON for the week ending Saturday noon, Nov. 3d, 89. Males, 40—Females, 49. Accident, 1—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—cancer, 2—cholera infantum, 2—consumption, 23—convulsions, 2—croup, 1—debility, 2—diarrhœa, 2—diphtheria, 2—dropsy, 2—drowned, 1—dysentery, 1—remittent fever, 1—typhoid fever, 2—disease of the heart, 3—malformation of the heart, 1—infantile disease, 1—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 7—marasmus, 4—old age, 6—premature birth, 1—puerperal disease, 2—smallpox, 2—teething, 2—thrush, 1—unknown, 4—uræmia, 1—whooping cough, 1.

Under 5 years of age, 25—between 5 and 20 years, 11—between 20 and 40 years, 17—between 40 and 60 years, 19—above 60 years, 17. Born in the United States, 53—Ireland, 30—other places, 6.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV. THURSDAY, NOVEMBER 15, 1866.

No. 16.

AN INTRODUCTION TO THE STUDY OF CLINICAL MEDICINE.

By GAETANO VALERJ, M.D., Professor in the University of Rome, Italy; Hon. Member of the Massachusetts Medical Society.

[Communicated for the Boston Medical and Surgical Journal.]

MY DEAR YOUNG GENTLEMEN,—You are here assembled for the very important purpose of examining with the utmost attention the manifold infirmities wherewith humanity is afflicted, of determining their various natures and degrees of intensity, of tracing them through their progress, and prescribing for them their proper remedies. In other words, you are here present to prosecute the study of the clinical department of the medical art, to put in practice the varied theoretical knowledge acquired during a course of four years in this University, and to learn how to convert it all into an agency suited to cure, or to relieve the patient. But if such be the intent which has urged you to frequent this School, most difficult, nay impossible, would it be to carry it out without having previously formed a distinct idea of the extent of your acquirements, or, to express myself more clearly, without knowing most precisely the *nature of the action of medicine* on the patient's frame, with *what intent*, and *within what limits* it is lawful for you to exercise it. Ignorant of all this, you will be acting with recklessness in a matter so delicate as is the health of mankind, acting like an artizan who would pretend to excel in his calling without knowing the use or efficacy of the instruments essential to it, or like a pilot who would steer his ship into safe harbor unknowing, or making no account of, the force of the wind, the primary and indispensable agency in favoring his enterprise.

In order, then, to understand clearly the sphere of the healing action, to determine distinctly the true sense and nature of that practical agency which you are to-day invited as so many artificers to exercise, let us, if you please, imagine ourselves to have been present at the cure of a long and grievous malady, executed with the utmost nicety of art, and to have beheld the patient at length completely restored to health. Let us, moreover, fancy ourselves, after this fortunate issue, to be called as umpires in deciding the following

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controversy, which might have arisen among those who witnessed the said recovery: "*To whom is due the honor of the cure?*" Some would pretend to attribute it to the highly-skilled physician, others to the all-potent *vis medicatrix nature*.

Do not consider, young men, as futile the question proposed, nor so easy of solution as might appear to some at first sight. On the contrary, it is a question of the highest importance, including the hinge, the very turning point of the medical art, and daily brought forward by physicians themselves, by patients, and by the public. To be enabled to judge as to which of the two agents—nature or the physician—operates in the cure of diseases, or, to express myself more accurately, in what degree, and with what subordination, each of these two causes contributes to this effect, is tantamount to understanding in what true and efficient medicine consists, and becoming initiated into the exercise of it through the requisite knowledge of the respective value of all the instrumentalities indispensable thereto.

Who, then, cured the patient? or rather—to generalize the question, as we have to discuss the argument not as it regards an individual case, but the whole circle of infirmities—*who cures diseases, Nature or the Physician?*

Previous to pronouncing our sentence, according to the correctness or the falsity of which, correct or false must be the mode of curing, it is requisite first to examine what we should understand by this word *nature*, and in what manner it acts, and afterwards to define the scope and limits of medical action in the cure of diseases.

By the term nature is meant that *aggregate of natural causes and powers proper to the living man, which, though irrational and void of volition or discernment, favor and watch over his conservation in the state of health, and his cure in the state of illness, and all this with surprising regularity.* "*Uti solerter sanitatem tuetur, sic optime morbis medetur natura,*" says Sydenham. "*Quoties vero naturam nomino, toties causarum naturalium complexum quemdam significari volo, quæ quidem causæ brutæ licet, et omni consilio destitutæ, non tamen sine summo consilio reguntur, dum suas quæque operationes edunt, suosque effectus consequuntur.*"

This definition, as you will see, is used entirely in a practical sense; that is, conformably with the clinical and experimental view of the subject, and from which I do not mean to depart, and which consists essentially in admitting that man, upon whom we try our medical action, possesses those faculties and powers with which in reality we see him endowed, as likewise in being acquainted with the order and laws by which they act and move. As the word gravitation does not express a hypothesis, and signifies simply this general fact, that every body tends towards the centre of the earth, without embracing the question as to whether this depends on attraction, sympathy, impulsion or other causes, so the term nature, in the sense we have attached to it, will not signify an abstract or hypothetical idea,

but the existence of the actual powers, which we see acting in the vital organism, occasioning its various phenomena, and operating with incessant activity and wondrous regularity towards its conservation, as well in the physiological as the pathological state, without regarding in what their essence consists. If, then, we contemplate with astonishment the efficacy of these powers, and the order and mode of their action; if the scope to which they unfailingly tend be that of man's welfare both in health and illness, it is all to be attributed to the infinite wisdom of the omnipotent Artificer of Creation. "*Nimirum supremum illud Numen,*" continues Sydenham in the above-cited definition, "*cujus vi producta sunt omnia, et a cujus nutu dependent; infinita sua sapientia sic disponit omnia, ut ad opera destinata se certo quodam ordine et methodo accingant, nec frustra quicquam molita, neque nisi quod optimum est, ac toti rerum fabricæ, suisque privatis naturis maxime accomodum exequentia.*" Not otherwise writes Baglivi: "*Naturæ nomine non intelligo sapiens quodam Phantasma vagans, et consilio singula dirigens, sed complexum quendam generalem causarum naturalium, quæ licet consilio destituantur, effectus tamen suos pariunt juxta leges a summo conditore inditas, atque ita ordinate, ut quasi a summo regis consilio videantur.*"

In order to prove that man receives and retains within him by means of his original organization and conformation an aggregate of special causes and powers suited to his existence and preservation, it will suffice to bestow a rapid glance on the functions which are incessantly at work within him; for function comprehends action, or movement, and movement the cause or force which produces it.

The fluid blood, so complexly composed as not to be reproduced by the most accurate chemical synthesis, although by the process of analysis its component parts are well ascertained, impelled from the heart, circulates by means of the arteries through every part of the body. Containing in itself the anatomical elements of our tissues, during its course, and at its contact, not only all the organs absorb the materials of their manifold and respective secretions, but even every cell, every fibre selects and appropriates to itself the hystologic element from which it is formed, just as the beast of the field tastes and chooses in the flowery pasture such herbs as most please and quicken its appetite; while the molecules, already worn out and rendered useless to the economy, are secreted and absorbed, and by the current of blood are afterwards eliminated through their proper emunctories. Now this vital fluid, from having given to each organ the materials of so many secretions, from having nourished every part of the economy, that is, administered to each the *unicuique suum*, undergoes a diminution of its reparative substances. But returning through channels quite different from those by which it had parted, to the heart, the centre of its motion, it receives the product of the alimentary substances, wonderfully elaborated by an apparatus of organs surprising and inimitable in their structure; thence

passing into the vast superficies of the lungs, almost in contact with the atmospheric air, it becomes purified from the noxious gases with which it was intermixed during its passage, absorbing others of a requisite revivifying nature, and thus becomes, as before, the *pabulum vite*; that is to say, enriched again with all the various substances essential for the nutritive functions and manifold secretions, it continues its unfailing circulatory motion. In the mean time, as a result of all these processes of composition and decomposition, of assimilation and disassimilation, is produced a constant development of caloric, by virtue of which the body maintains a temperature proper to itself, and almost invariable, whatever be that of the atmosphere which surrounds it. But all this regards only the vegetable existence of man; or, in other words, those functions which affect directly, or I might say silently, his material preservation. Other functions are in activity within him, and of such a nature that, although as requisite as the purely vegetative to his existence, they are, notwithstanding, of a more elevated order, because distinguishing him from all other created beings, rendering him conscious of the vicissitudes enacted within him, placing him in close relationship with external objects, constituting him, in fine, nothing else than an intelligent, moral being. From the necessity under which he stands of receiving and selecting his alimentary food, he is provided with a locomotive apparatus, by means of which he moves wherever he pleases, and thus regulates his relationship with his kind, and with all surrounding objects; and whereas such objects are not indifferent to him, but on the contrary claim a necessary and indispensable connection with his being, he is endowed with a nervous system, by means of which he feels the different impressions derived therefrom, distinguishes their several natures, brings them near or removes them from him—in a word, subjects or withdraws himself from their influence. In truth, this nervous system, arranged in five different forms through the apparatus of five external senses, ramifying through every part of the tissues and viscera, terminating in the great encephalic mass, or rather, if you will, originating from it, is the truly marvellous organ of sensibility. By means of this, man perceives the various and distinct impressions of heat and cold, of sound, color, taste, and smell of different objects, experiences a sensation of well-being from the state of health, of indisposition from that of illness; it is by it that the soul within the brain exercises its noble intellectual faculties; namely, it feels, thinks, reflects, compares, discerns, judges, wills or rejects, determines the the body to motion or station, &c. &c. Finally, in the enumeration of its functions we should not omit that important and mysterious one, which is reproduction or generation. Performed by an apparatus of special sexual organs, distinguished into male and female, it is the result of a series, more or less complicated, of acts by which the individual begets a new being like unto himself, and thus perpetuates his kind through the ages.

Such are the functions of the human vital organism, which I merely mention with the sole view of giving you to understand that their continual and uninterrupted exercise necessarily proves the actual existence and simultaneous action of corresponding *powers*. But though we may all be convinced of this, there are some who might maintain that they are nothing beyond the common, or, in other words, are nothing more than those powers which at every moment we behold acting in the physical world. Now such an opinion would be lamentably erroneous, and in order to refute it we deem it requisite to dwell at some length on this subject.

You are all aware that physiologists, after having attentively examined our tissues, and the various systems and organs derived from them, and finding them, as they really are, endowed with physico-chemical properties (some being, in fact, consistent and tenacious, others extensile, others elastic, hygrometric, &c. &c.), have therefore unanimously directed their studies with laudable and unwearied zeal towards explaining every act of the human economy by the powers and laws of physic, chemistry and mechanics. Numerous, indeed, are the useful results and positive notions with which these studies have supplied us for the elucidation of the many phenomena of our frame, and it would be foolishness to deny their importance, ignorance and serious loss to be unacquainted with their precise meaning. Who among you is not aware of the utility, the absolute necessity of the laws of optics and acoustics for the explaining of the senses of sight and hearing, those of mechanics for demonstrating the phenomena of locomotion and circulation, the influence that chemical laws exercise over digestion, respiration, absorption, secretions, &c. &c.? The respective degree of action that these material forces exercise over the acts of our frame is a positive and undeniable fact, and constitutes a most valuable fund of knowledge, which we find every day increasing and becoming more complete; knowledge so necessary both to the physiologist and practitioner, and constituting one of the fundamental bases of our acquaintance with the human kind, both in health and illness. But is this aggregate of knowledge sufficient to demonstrate thoroughly any act whatsoever, even the simplest, of the vital organism? No, certainly. Mechanics, with its laws of equilibrium and its three descriptions of levers, will never be able to explain the sometimes incredible amount of muscular force, and much less will the anatomist succeed therein with the description of his successive zig-zags and inflections of the muscular fibres. Chemistry, every day more and more enriched with accurate analyses of all the fluids which circulate within us, will never succeed in re-composing by synthesis a product equivalent either to blood or to any other humor, much less to form a substance that can compare with a bone, a muscle or a nerve. Neither with the theory of affinity, of catalysis, endosmosis, or exosmosis, will it succeed in demonstrating how that bread and onions, as the saying is, with which you poor man is nourished, can

be converted, equally with the fibrine of a succulent paste eaten by a *gourmand*, into blood so rich as afterwards to be transformed into the whole distinct and varied series of the hystologic elements of all his tissues. What law more fixed and general than that of the force of gravitation, which the whole universe obeys? and yet man, at every step he takes, is being uplifted from the earth, and his humors incessantly ascend from the extremity of his feet to the thinnest tips of his hair. But, you will say, do not the degrees of calibre of the vessels, their valves, capillary attraction, atmospheric and muscular pressure explain this phenomenon? No, certainly; all these and such like causes doubtless contribute, each in its proper degree, towards producing it; but for its complete demonstration we must recur to the irritability of the muscular fibre of the heart and arteries, to the stimulating force of the blood, and to that of the nervous system, which exercise their influence up through the whole ramifications of the circulatory system. Now such powers, as you well know, are quite of a different nature from those called physico-chemical. And what will the professors of physic and chemistry say respecting the recondite phenomenon of the nervous action? By which of the forces which regulate the materials of their experiments will they explain the transmission to the common sensorium of the impressions received by the senses, or the motive impulse communicated by the sensorium to the very nerves interspersed through the muscles? Microscopic researches have succeeded admirably in discovering that the composition and structure of the nervous system results from the tubes and corpuscles, or cells, and moreover that the nervous motive fibres are distinct from the nervous sensitive fibres in the cerebro-spinal axis, and from the rachitic nerves; but notwithstanding all this, the cause of the nervous action is still a mystery! The numerous electrical experiments have proved, that if nervous phenomena are not without an analogy with electric phenomena, they are nevertheless far from being an effect of electricity and magnetism. In fact, it has been ascertained that the nerves, contrary to the expectation of so many experimentalists, are bad electric conductors, and that the velocity of the nervous currents of the nerves is much less than that of the electric currents up the conductors of our physical apparatus.* Electricity travels nearly at the same rate as light—that is, more than 500 millions of metres in a second; the nervous currents travel about 16 millions less in the same space of time. What must we conclude from these facts? The deduction to be drawn from them is quite clear. Taking it to be proved and granted that the physical powers, with their various properties and laws, do not explain completely, but only partially and to a certain extent, the functions of the human vital organism, since between them and the vital acts exists not that full and direct relationship which must exist between cause and effect, we are forced, on logical grounds, to admit and acknowledge that there is within us another principle of

activity, which concurs with the aforesaid powers in producing and explaining completely the phenomena of life.

What, then, is this other indispensable element of activity? this other singular force? Mysterious in its essence, though most manifest in its effects, as are in this two-fold regard all the material forces, which human knowledge has become acquainted with, and made the subject of discussion, this is the *vital power*, so called, conformably with the concurrent sanction of physiologists, from the universally acknowledged fact, that it exists and plays its part only during life-time, and ceases with it. Diffused through the entire organism, whether this consists of the first embryonic cell, or of the body arrived at its complete development, it resides not in one part in preference to another, but pervades equally all tissues and organs, the blood-globule, the muscular fibril, the nervous duct, the cellular lamina, &c. &c. It is no wonder, then, that the physical powers, acting upon an organism endowed by the vital action with such special force, are modified in their effects, and incapable of themselves of producing the numerous phenomena above enumerated; whence it follows that if any philosophic physician, by defining life as a *contradiction of physico-chemical forces*, have exaggerated the importance of this fact, or rather interpreted it wrongly, it is true, on the other hand, that the physics and chemistry operating in our frames, are *special physics and chemistry*, varying essentially in their results, and exercising themselves not in the museum and laboratory of purely inanimate matter, but in the laboratory of the human organism composed of living matter; that is to say, endowed with a singular force which it receives from the act of existence.

But it is not my purpose to expatiate at greater length in the field of physiology; what I have stated was requisite to prove the actual existence and specialty of those powers, whose simultaneous and united action constitute the conception of "nature." In order, however, thoroughly to understand their signification, it is necessary that we should now briefly direct our attention to the spontaneous and wondrous effects, which result from these forces, which reside and operate in man, and which we have but just now demonstrated.

The first fact which presents itself, is the perfect order and unison with which the different parts and functions of the organism are linked together. Although this results from a re-union of tissues, differing in form, structure and uses, notwithstanding the limits which the anatomical texture seems to fix between each of them, they are nevertheless intimately associated, and harmonize into a truly wondrous *ensemble*. Granted that the different pieces have peculiar actions, different sizes, and various distances, the influence of the elements of life penetrating into, and distributing itself through each of them, they are connected by manifold relations, and mutually communicate their sensations and influences in such a manner, that all converge, all conspire, and concur towards the same end: the

tissues and organs, that is, constitute by their mutual action and symmetry the union, the *great one* of Hippocrates. The same may be said of the functions: could we conceive or demonstrate what nutrition is without digestion, this latter without circulation and absorption, absorption without exhalation or secretion, and vice-versá? And could these vegetative functions be effected and understood without the concurrence of those called animal or relative functions, namely innervation, motion, sensibility? Let a skilful anatomist or physiologist commence his description and explanation of our body with one tissue, viscus, or function, rather than with another, and he will succeed equally well. Tissues, organs and functions, all are so intimately connected with, and dependent on one another, that to commence or conclude this circle of activity with one point in preference to another is a task equally practicable and regular. "*Nullum meâ quidem opinione,*" writes Hippocrates, "*corporis est principium, sed omnes partes ex equo et principium et finis esse videntur. Descripto enim circulo, principium non invenitur.*" De locis in homine.

Engrave, I pray, my young friends, this fact on your memories; it is the origin, the efficient cause of a fundamental canon, indispensable for the study of the human organism, as well in health as in illness, and is as follows: That each part sympathizes with, participates and contributes towards the well-being or indisposition of every other part.

Another result of no less importance is, that our existence is limited by a certain space of time: "*Constat æterna, positumque lege est, constat ut æternum nihil!*" exclaims Boezio. The duration of man's life is fixed almost invariably, as in the case with all other kinds of animals, nor can the physician nor philosopher explain the reason why the lives of some of them are ephemeral and transient, while others enjoy a very long one. We may infer from this, that medicine is not an art, to heal all diseases, but only such as are curable; "*Neque enim fieri potest, ut omnes ægroti sanitatem assequantur!*" Between your action and the disease you will find the alternative of life or death!

On a like principle the organism has also a determined *time* and *measure* (and this too almost invariable) for its complete development, and that of its parts. Dentition belongs to infancy, the development of the organs of generation to puberty, the maximum of muscular fibre and strength is observed in youth, the exuberance of the adipose cellular tissue in manhood; and to be brief, we will state, that the other organic systems, the very splanchnic cavities and the parts contained therein, complete the degree of their respective perfection with a fixed lapse of years, becoming, at their respective periods, centres of an exuberant nutrition and special activity. In the mean time at our twenty-first, or twenty-second year, the skeleton attains its maximum height, and grows no higher after; so that if a certain latitude is still left for the further development of the body's trans-

verse dimensions, the *non plus ultra* of his longitudinal one is determined. When all the parts have attained, at the prefixed time and established periods, their complete development, the economy seems to continue for several years in a state of equilibrium more apparent than real, until following an inverse and equally graduated order, it runs towards its fatal decline. "*Old age is a second childhood*," according to the vulgar adage; for when the intellectual faculties have relapsed into childish weakness, man's physical structure, and, with it, the harmonious degree and concurrence of the forces which animate him have undergone the law of gradual debility, as they had previously passed through their gradual and periodical development. The knowledge of this law is of a most *significant* practical importance. Firstly, by observing that in the physiological state, the economy increases, and develops itself *cum ordine, tempore, et mensurâ*, we may foresee and conclude that, even in the pathologic, the morbid processes must proceed, as in fact they really do, with order, time, and measure; secondly, we shall not be surprised by this other clinical fact, verified by all medical observers, that the physiological changes above mentioned, corresponding to the different epochs or periods of life, exert an influence over the production and frequency of the diseases peculiar to those splanchnic cavities in which such changes are effected. In other words, at the period in which the systems and organs become the centres of predominant development and action, they become subject simultaneously to certain morbid impressions and processes proper to themselves. For this reason it occurred to the celebrated Stahl, with exquisite clinical tact, to divide life into *three medical periods*; the first appertaining to diseases of the head, the second to diseases of the chest, the third distinguished by alterations in the abdominal viscera.

[To be concluded.]

DISCHARGE OF HYDATIFORM CYSTS FROM THE UTERUS.

To the Editors of the Boston Medical and Surgical Journal.

MESSRS. EDITORS,—On the 3d of May, 1866, I was called to Mrs. M——, aged 21, married, and the mother of one child fifteen months old. I found her flooding profusely, with a pulse almost imperceptible. She was tossing about on the bed, and in considerable pain. I gave her stimulants, under which the pulse rallied somewhat. On examination of the abdomen, I was struck with the peculiar condition of the uterus, which was as large as at the seventh month of pregnancy, but very irregular in shape, and very hard. Examination per vaginam revealed the os uteri dilated to about the size of a shilling, and occupied by what I took to be placenta. She was still flowing, and I gave her ergot, and detached with my finger the supposed placenta, thinking the case was one of placenta prævia. The ergot

acted promptly, and very soon the hæmorrhage ceased, good contractions took place, and I removed a mass from the womb, consisting of a cluster of cysts from the size of a large shot up to an inch in diameter. I continued to remove such masses until I had a large chamber vessel two thirds full, and the uterus could no longer be felt above the pubes. During the process, stimulants and ergot were freely used. There was not much further hæmorrhage, but the patient remained for several hours in an exhausted condition. The cysts were thin, semi-transparent, with little processes upon them, which some authors describe by the name of "hooklets." There was no appearance of any fœtus or placenta. Some *old* clots were expelled immediately after the last of the cysts. The history given me was, that she had "flowed" for several weeks, but had neglected it; had had no pain; had not menstruated since the birth of her child, and had always enjoyed good health. She slowly recovered, having considerable fœtid discharge from the vagina and some irritability of the bladder.

Was this a case of hydatids? If not, what was the pathological condition?

DANIEL E. WELLS, M.D.

Franconia, N. H.

[In reply to the inquiry of our correspondent we would say, that we are of the opinion that this was not a case of true hydatids, but of hydatiform cysts, the true nature of which has been the subject of much discussion by pathologists. High authority considers them as due to conversion of cells in the villi of the chorion into cysts, but this has been doubted by others. With regard to the question whether true hydatids are ever found in, and expelled from the uterus, Dr. Bedford, in his admirable work on the Principles and Practice of Obstetrics, says:—

"It is true, science has but slender evidence recorded of the true hydatids being discharged from the uterus; and the general belief is, that they cannot originate in that organ. Rokitansky, certainly a good authority, says: 'Cysts are very rarely formed in the uterus; we have not met with a single example in Vienna, and I myself have only inspected one case of uterine acephalocysts.' Here, then, is an admission that, in one instance, at least, the true hydatids have originated in the uterus. The admission, therefore, of this one case, while it proves the extreme rarity of the occurrence, conclusively establishes the fact of the possibility of these formations. Indeed, I do not understand what there is in the anatomical structure of the womb at all incompatible with the growth of these acephalocysts; it is universally agreed that they are found in other portions and structures of the economy—why, also, under certain circumstances, may they not originate in the uterus?"

"But a most material question is this: Have we any reliable means of distinguishing the true hydatids from the products origi-

nating from the degenerated villi of the chorion? This question may be answered affirmatively—under the microscope, and sometimes with the naked eye, when true hydatids exist, it will be observed that the cysts are enclosed one within the other; on the contrary, in the hydatiform vesicles, these latter, which may be rounded or oval shaped, are attached to each other by slight pedicles, and have not been inaptly compared to a string of beads. These distinctions are now recognized as ample to prevent any possibility of confounding the one with the other.”—EDS]

Reports of Medical Societies.

VERMONT MEDICAL SOCIETY—FIFTY-SECOND ANNUAL SESSION. REPORTED BY THE SECRETARY.

THE fifty-second annual session of the Vermont Medical Society was held at Montpelier, October 17th and 18th, 1866—the President, Wm. McCollom, M.D., of Woodstock, in the chair. L. C. Butler, M.D., of Essex, Secretary. The session was opened with prayer by Rev. Mr. Wheelock, of Cambridge, after which the Society proceeded to business.

Dr. E. D. WARNER, the Committee appointed at the semi-annual session to “inquire into and report the facts” in the case of the “member of this Society” alleged to be engaged “in the manufacture and sale of a patent medicine,” and “using quack methods of introducing the same to the public,” reported that he had held correspondence with the individual, and ascertained that he is vending a remedy for diphtheria, which he terms the “Italian remedy” for that disease, but that the recipe for it is not held as a secret from the profession, but has been communicated freely to any of the profession desiring it.

The report was accepted, and, after considerable discussion, the whole subject was referred to a committee, consisting of Drs. Woodward of Brandon, Upham of Randolph, and Morgan of Bennington, with instructions to investigate the matter more thoroughly and report at the semi-annual meeting.

The credentials of Drs. A. Millett and S. Phelps, from the Massachusetts Medical Society, and of Dr. Ashbel Woodward, from the Connecticut Medical Society, were presented, and they were cordially greeted as delegates from those Societies, welcomed by the President, and invited to participate in the proceedings of the Society.

Dr. E. D. Warner was appointed committee on the admission of members, in place of Dr. Russ, who was absent. Dr. Russ was subsequently present.

Dr. H. D. HOLTON, from the committee on the resolution of Dr. Perkins at the semi-annual session, reported several amendments to the Constitution of the Society, and an “Order of Business.”

The report was accepted and adopted. These amendments provide for a Board of Councillors, consisting of one from each county in the State, who have the general oversight of the business arrangements

for the annual and semi-annual sessions, and to whom all applications for membership must be made.

Dr. J. N. STILES, one of the delegates to the New Hampshire Medical Society, reported his attendance upon the annual meeting of that Society. One item of business transacted, of which he thought favorably, was the presentation of favorite prescriptions by its different members.

The delegates to the Medical Department of the University of Vermont reported their attendance at the examination of the graduating class, their cordial reception by the Faculty, and participation in the examination.

The delegates to the American Medical Association, at Baltimore, reported a very interesting and profitable meeting. Dr. Holton gave a brief *résumé* of its proceedings, correcting the erroneous impression made by the apparent adoption of Dr. Marsden's views of quarantine by the Association.

The committee on admission of members reported favorably, and the following individuals were duly elected members of the Society, viz.: Drs. S. T. Brooks, St. Johnsbury; C. C. Smith, East Berkshire; J. H. Steele, Middlebury; L. F. Burdick and J. P. Kent, Winooski; D. G. Kemp, Montpelier; Laban Tucker, West Hartford; E. H. Petten-gill, Saxton's River; and F. H. Goodall, Greensboro'.

Dr. L. C. BUTLER, from the committee to whom was referred the subject of the Registration Laws of the State and amendments proposed thereto, at the last annual meeting, recommended the proposal for adoption by the Legislature of amendments to the law, making the physicians of the State the registrars of births and deaths.

The report was unanimously adopted, and a committee, consisting of Drs. Nichols, Secretary of State, Porter of the Senate and Welch of the House of Representatives, was appointed to prepare a bill for presentation to the Legislature now in session, embodying such amendments to the law as are deemed desirable, and urge its passage.

The President was invited to deliver the annual address at 6½, P.M., this day.

A communication was read from the Secretary of State, accompanying the Registration Reports of the State for 1862-3-4—a copy for each member of the Society.

Dr. A. C. WELCH introduced the subject of certain statements of mismanagement and cruelty in the Insane Asylum of the State, made to the Legislature now in session, and the election of an individual as Commissioner of the Insane by that body, who does not belong to the profession. The matter gave rise to considerable discussion, in which Dr. E. D. Warner, Ex-Commissioner of the Insane, and others who were conversant with the management of that Institution, participated, repelling as unfounded all insinuations of cruelty or improper management made against it.

On motion of Dr. E. N. S. Morgan, the subject was referred to a committee of three, consisting of Drs. Butler, Fassett and Fairchild, with instructions to report to the Society at its present session by resolutions or otherwise, as they may deem advisable.

At a subsequent stage of the session, Dr. Butler, from that committee, reported the following preamble and resolutions, which were

unanimously adopted by the Society, and a copy directed to be furnished to the several papers in the State, with a request for publication, and also to Dr. Rockwell, the Superintendent of the Asylum.

Whereas, It has come to the knowledge of this Society, that pending the election of a Commissioner of the Insane by the Legislature now in session, remarks were made by some members reflecting with severity upon the Vermont Asylum for the Insane, implying charges of cruel neglect, and improper management of its patients, therefore,

Resolved, That it is the opinion and belief of this Society, that all such charges, or representations, are without foundation in fact; calculated to impair the confidence of the community in an Institution which, after thorough investigation by well qualified persons, we believe to be well managed for the best interests of those under its care—an institution of which our State may be justly proud, as affording advantages for the comfort and cure of this unfortunate class of persons at least equal to those of any similar institution in our country.

Resolved, That as a Society we believe, and respectfully say, that in our opinion the duties of Commissioner of the Insane—to watch over the interests of a great hospital—its sanitary, dietetic, and medical management—to investigate that most intricate and difficult of all diseases, and to protect the unfortunate sufferers from improper treatment of every kind, can be most properly and efficiently performed by an experienced and judicious medical man; and we respectfully protest against the late action of the Legislature in electing an individual to that office who is outside of the medical profession.

During the afternoon session, Dr. J. N. STILES read a paper on the *Treatment of Smallpox*, in which he spoke favorably of the use of *Saracenia purpurea* in cutting short its course. Dr. Stiles also presented specimens of the root and leaves of the plant.

Dr. Millett, of Massachusetts, had used the *Saracenia* in one instance, and found the eruption speedily subsiding and aborting. In other instances it had failed. It had been thoroughly tried in several cases on Rainsford Island, Boston Harbor, by Dr. Underwood, but without success.

Dr. C. A. SPERRY reported a case of *Retained Catamenia from Imperforate Hymen*, in a girl of 13 years. On making an incision, nearly a quart of black, tarry, semifluid substance was expelled with considerable force. For nearly a year previous she had had periodical, monthly pains.

Dr. R. H. PHELPS detailed an interesting case of *Wound of the Knee-joint*, in which a vigorous young man of 19, of sound constitution, stumbled upon a scythe, severing the inferior edge of the patella from its connections, cutting off a piece of bone three fourths of an inch long by one eighth wide, together with considerable cartilage, from the inner condyle of the femur, and about one half the same amount from the external condyle of the tibia, dividing the muscles and ligaments into and through the joint, exposing the whole knee-joint, and making a wound which measured over four inches on the surface. Under the application of proper dressings, the double inclined plane splint, rest in the recumbent position, the use of aconite to control the inflammatory symptoms, and subsequently passive motion of the joint, at the end of two months there was "but slight enlargement of

the joint, and no tenderness on pressure at any point." The patient can flex and extend the injured limb nearly as well as the other, and can walk comfortably without crutches.

Written reports on the Epidemics of Caledonia and Washington Counties were presented by Drs. Hyde, of Hardwick; and Putnam, of Montpelier, the former alluding in an especial manner to Diphtheria and Dysentery, and the latter to Typhus and Typhoid Fever. No other reports were presented.

Dr. S. W. THAYER remarked on the non-prevalence of dysentery in his particular locality, but he had seen many cases outside of it. He used mercurial preparations in its treatment, in this way:—*R.* Sach. lactis, $\mathfrak{z}\text{i}$.; hyd. cum creta, $\mathfrak{D}\text{ss}$.; ipecac, $\mathfrak{D}\text{ss}$. Divide into thirty powders, one to be taken every two or four hours, according to urgency of symptoms. For the tenesmus he uses, and strongly recommended the chlorate of potash injection, as follows:—*R.* Mucilag. gum acaciæ, $\mathfrak{z}\text{ij}$.; potas. chlorat., $\mathfrak{z}\text{i}$.; inf. opii, gtt. xl. Misce, for a single injection.

On motion of Dr. UPHAM, a committee on Nomination of Officers for the ensuing year was appointed as follows, one from each county represented:—Drs. O. F. Fassett, J. N. Stiles, E. F. Upham, G. B. Bullard, C. B. Chandler, S. R. Corey, Salmon Brush, J. H. Richardson, E. D. Warner, E. H. Pettengill, Abram Harding, E. N. S. Morgan.

During the evening session, the Society listened to an able and interesting address from the President, on *The History and Progress of Medicine*.

On motion of Dr. HOLTON, the Society tendered the President a unanimous vote of thanks for his address, and ordered its reference to the Committee on Publication.

The Treasurer reported the financial condition of the Society.

On motion of Dr. FASSETT, the Secretary was constituted a committee to confer with the publishers of the *Vermont Register* and *Vermont Directory*, with a view to procure through their publications a more complete and correct directory of the regular physicians in the State.

Adjourned to Thursday, 9, A.M.

The Society convened on Thursday at 9 o'clock, A.M., agreeably to adjournment. The President in the chair.

The credentials of Drs. John H. Moore, E. W. Howard and William P. Seymour, as delegates from the New York State Medical Society, were presented to the Society, and they were cordially welcomed by the President, and invited to participate in the deliberations of the Society.

Dr. HOLTON, of Putney, read brief biographical sketches of Drs. L. E. Simons, of Saxton's River, and Dr. John Campbell, of Putney.

Dr. FASSETT, of St. Albans, read an elaborate sketch of the life, character and eminent services of Dr. H. F. Stevens, of St. Albans.

Dr. CRANDALL, of Burlington, read a biographical memoir of Dr. S. P. Danforth, of Royalton.

The Committee on Nomination of Officers and Delegates for the ensuing year reported as follows, and the individuals named were duly elected:—

President—Dr. E. D. Warner, of New Haven.

Vice President—Dr. E. D. Holton, of Putney.

Secretary—Dr. L. C. Butler, of Essex.

Treasurer and Librarian—Dr. Charles Clark, of Montpelier.

Corresponding Secretary and Auditor—Dr. C. B. Chandler, of Montpelier.

Executive Committee—Drs. O. F. Fassett, C. P. Frost and C. L. Allen.

Committee on Printing—Drs. L. C. Butler, J. S. Richmond, A. C. Welch.

Committee to assist the Secretary of State in compiling Registration Reports—Drs. O. F. Fassett and L. C. Butler.

Delegates to the Medical Department of Vermont University—Drs. S. Keith and J. N. Stiles.

Delegates to New Hampshire Medical Society—Drs. A. J. Hyde, E. H. Pettengill.

Delegates to New York State Medical Society—Drs. E. N. S. Morgan, H. D. Holton.

To Rhode Island Medical Society—Drs. S. Putnam, Laban Tucker.

To Maine Medical Society—Drs. C. S. Cahoon, S. T. Brooks.

To Connecticut Medical Society—Drs. C. P. Frost, C. H. Tenney, A. T. Woodward.

To Massachusetts Medical Society—Drs. G. B. Bullard, E. F. Upham.

To Connecticut River Valley Medical Society—Drs. G. Van Deusen, N. W. Braley.

To American Medical Association—Drs. J. H. Hamilton, Kimball Russ, E. F. Upham, L. F. Parker, T. T. Cushman, R. B. Skinner, S. Putnam, E. P. Fairman, E. D. Warner, A. T. Woodward, H. D. Holton, Abram Harding, S. W. Thayer.

Committee on Epidemics—Drs. J. O. Cranston, W. M. Huntington, T. G. Simpson, C. S. Cahoon, C. G. Adams, S. R. Corey, C. M. Rublee, J. B. Morgan, — Eddy, E. N. S. Morgan, Joseph Perkins, W. H. Ellis, A. H. W. Jackson, A. M. Plant.

Board of Councillors—Drs. W. R. Hutchinson, J. N. Stiles, N. W. Braley, G. B. Bullard, C. G. Adams, L. W. Adgate, C. B. Chandler, S. Brush, M. O. Porter, E. N. S. Morgan, A. T. Woodward, Abram Harding, J. H. Richardson, and H. D. Holton—one for each county.

Dr. M. O. Porter read an interesting case of *Ovarian Disease* occurring in his practice, in which the operation of ovariectomy was successfully performed.

Dr. A. M. Plant read a paper on "*The Old and the New in Medicine*," in which he contrasted the dogmas and practice of former times, quite unfavorably with the present, both with regard to utility and success.

The semi-annual session of the Society was appointed to be held at the city of Burlington, on the 28th and 29th of June, 1867.

The meeting was largely attended, and the exercises were very interesting and profitable throughout. The papers read were of a high professional character, and reflect great credit upon their authors and the Society.

A "*Home for Incurables*" has been established in Westchester County, New York, under the patronage of the Protestant Episcopal Church of the metropolis.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, NOVEMBER 15, 1866.

REVIVED MEDICAL JOURNALS.

SINCE the return of our country from the excitements and desolations of war to the more welcome arts of peace, medical journalism has taken a new impulse, and is now engaging the energies of many active minds which during those disastrous four years were taxed to the utmost in meeting the demands upon their professional skill. The universal strain upon the national resources during that period almost extinguished medical periodicals at the North, and at the South suspended them altogether. It is a matter of no little surprise to see with what energy the interrupted labor has been resumed, and with what vigor in all parts of the country the older journals have been inspired, and new ones have sprung into existence. This is more striking at the South, where, from the nature of things, the pecuniary resources of the people have been more severely drawn upon than at the North. We referred, some time since, to several of our new exchanges, and at the present time propose to notice some of the others.

From Georgia we receive three—*The Savannah Journal of Medicine* [new series], *The Southern Medical and Surgical Journal*, and *The Atlanta Medical and Surgical Journal*. The first is a bi-monthly journal, containing seventy-two pages of original and selected matter, and is edited by Juriah Harriss, M.D., James B. Read, M.D., and J. G. Thomas, M.D. The last number contains four original communications of interest, with the record of a recent meeting of the Georgia Medical Society. Among the original papers is the conclusion of one on Cerebro-Spinal Meningitis by Dr. Harriss, which is interesting as giving an account of this disease as it occurs under the influences of a Southern climate. The abstracts and selections are judiciously chosen, and the Savannah Journal has a practical character which promises to make it very useful to its readers.

The Southern Medical and Surgical Journal is a revival of a well-known publication of high professional standing, and is also issued bi-monthly. Each number contains one hundred and eighty-four pages, and the one before us, for October, fully sustains its old reputation. It contains valuable articles on Wounds of Large Joints and Resection, contributions from the dearly-bought experience of the period of the Journal's suspension, and an excellent paper by Prof. Jones on the Relations of Malarial Fever and Pneumonia. The views which it presents are eminently wise and judicious, and we are glad to see that the author's opinions coincide with those of the most advanced members of the profession at the present time with regard to treatment in the latter. One of the concluding paragraphs shows the drift of the whole paper. "Uncomplicated pneumonia, especially in young and vigorous constitutions, almost always gets well, if, instead of being lowered, the vital powers are supported, and the excretion of effete products assisted." This Journal will hold a place in the first class

of medical periodicals; it is edited by L. A. Dugas, M.D., De Saussure Ford, M.D., and W. H. Doughty, M.D.

The Atlanta Medical and Surgical Journal is a monthly, and as revived, the October number is the eighth of Volume VII. It hardly comes up to the other Georgia journals in interest or value, but exhibits a decidedly energetic spirit on the part of the editors, Drs. J. G. Westmoreland and W. F. Westmoreland. Several of the papers are too much in the "spread-eagle" style to suit our taste. A page and a half of what are emphatically, as they are styled in the Journal, "original lines," contain about as much doggrel and bombast as we ever happened to see in the same space; to say nothing of the sentiment which they contain, the malignity of which is more than counterbalanced by the absurdity and extravagance of the language. A large part of the fifty pages of the present number is made up of valuable selections. We must defer to a future number a notice of some other new and revived journals, some of which are an honor to the profession and the country.

WE think our readers will be interested in the address by Prof. Valerj, the publication of which we begin this week. It shows that there are enlightened minds in the medical profession in Italy, notwithstanding the impression to the contrary produced by the treatment in the cases of Cavour and Garibaldi. The address was translated into English by the author.

Portability and Communicability of Cholera.—The following cases, illustrating the portability and communicability of cholera, are communicated to the *Cincinnati Lancet and Observer* by Dr. W. H. Mussey:—

"A Mr. Falrod died of cholera in Cincinnati. His father took the body to Portsmouth, Ohio. During the exercises in the church, the father was taken sick with the cholera and died the same night. A daughter was then taken sick and died. The mother also died. Another daughter who had taken care of the family, but had returned to the house where she resided, was taken sick and died the next day. There was no cholera at that time in Portsmouth, and these four cases of death are traceable to the case from Cincinnati.

"A gentleman in Greenup County, Ky., had been in Louisville and returned home, having a diarrhoea. The night of his arrival, his wife was seized with the cholera and died the next day. She had not been from the farm for a long time, and had no communication with the outside world but by the return of her husband from a cholera region, having a *choleraic diarrhoea*. It is claimed by high authority, that persons having *choleraic diarrhoea*, can communicate the disease to others, though they may not die of the disease themselves.

"A child named Kettle, nine years old, died a week ago last Sunday night on Elm Street (in this city), west side, four doors north of the canal. At the funeral services on Monday, a playmate, the child of a Mr. Miller (residing two or three doors from Mr. Kettle), kissed the corpse, was taken sick, and died of cholera on Wednesday."

Success in the Treatment of Cholera.—In Notes on Cholera, by an American Missionary at Constantinople, as published in the *Chicago Medical Examiner*, we find the following:—

“We have attended just 102 cases of those who were in bed when we called. These were bad cases, the symptoms plain; a number of them being in the collapsed state, and past hope, when we began to attend them. Of the 102, 18 have died; all the others have recovered, or are recovering. Besides these, we have given medicine to a large number, probably 350, who have come to our room with cholera symptoms, either diarrhœa or vomiting, or both. Of these, I presume, not 3 per cent. have died.”

On the Treatment of the Pedicle of Ovarian Tumors by the Actual Caутery.—From the Abstract of the Proceedings of the British Medical Association in the *Medical Times and Gazette* we take the following:—

“Mr. Baker Brown read a paper on the treatment of the pedicle of ovarian tumors by actual cautery. This practice had been adopted by the author in thirty-six cases, twenty-three of which had previously been given to the Profession in two papers read before the Obstetrical Society. Mr. Brown now gave in detail thirteen more cases. The following analysis will show the result of this treatment:—Of the whole number, five have died, of which two occurred in the first twelve and three in the present series. In not one of these had death resulted where the cautery had been used alone, with the exception of the second; here death was due to hæmorrhage from the site of an adhesion in the utero-rectal fold, which could not safely be reached by the actual cautery. In the remaining four, one or more ligatures had been used in addition to the cautery, the latter, from various causes, not having perfectly secured the pedicle. In these four, the causes of death were respectively—1. Peritonitis, with hypertrophied heart and thickening of aortic valves. 3. Peritonitis; no autopsy allowed. 4. General peritonitis. 5. Shock; a small quantity of coagulated blood on the stump. Mr. Baker Brown drew the following conclusion from his experience of this treatment:—That it is preferable in all cases first to employ the cautery. Should this fail, no harm has been done, and the ligature may be resorted to without disadvantage. The method of using the clamp was fully explained, and a newly improved instrument was exhibited. This clamp possessed parallel blades, and the bone, formerly fixed to the back of the clamp to diminish heat during division, was now separated, except by two long rivets, from the blades.”

Practical Medicine—Its present Position.—Dr. John Hughes Bennett, in his Address in Medicine before the British Medical Association at its recent session, sums up his opinions on the present stand-point of practical medicine as follows:—“1. That the empirical method of treating disease has reached its utmost limits, and that little further improvement is to be anticipated from it.

“2. That the great advance which has taken place in the science of medicine has led, and is leading, to various modifications in the rules of medical practice, which only lately were in general use.

"3. That these modifications principally consist in putting more confidence in the powers of nature, having recourse more frequently to the assistance of diet and other hygienic influences, and in employing more sparingly blood-letting and other so-called heroic remedies.

"4. That the value of many remedies in certain diseases is unquestionable, and that their judicious employment confers invaluable benefits upon mankind; but the utility of others is disputed or little known, and with regard to these a careful investigation is imperiously required.

"5. That such investigations demand great labor, advanced knowledge, and much valuable time, and that experience has demonstrated the impossibility of carrying them out satisfactorily without funds to remunerate investigators.

"6. That all applications of scientific treatment require the co-operation of medical men at large, and that no trustworthy results are likely to meet with general confidence in future, unless founded on extensive data, and formularized by a correct statistic."—*Edinburgh Med. Jour.*

New Hampshire Medical Institution, Dartmouth College, Hanover.—The annual medical commencement of this Institution took place on Wednesday afternoon, Oct. 31st, at the close of the term. The session has been quite successful. The advance of the fees, instead of diminishing the number of students, has had the contrary effect—the school has not been larger, with one exception, for twenty years. The number of graduates has also been unusually large.

The exercises consisted of an interesting and practical address by Thomas Wheat, M.D., of Manchester, one of the delegates of the New Hampshire Medical Society, and the reading of two prize theses by their authors.

Two prizes were offered by Prof. Dixi Crosby on the following subjects:—I. For the best thesis on "Anthrax." II. For the best thesis on "Causes, Pathology and Treatment of Uterine Displacements."

The prize for the best thesis on the first was awarded to Marshall Lebanon Brown, and on the second to Harris Orlando Palmer.

After the conferring of the degree of M.D., a triennial catalogue of the College was presented to each of the graduates.

NAMES AND RESIDENCES.

Francis Irving Bradford, Randolph, Vt.,
Marshall Lebanon Brown, M.S., Keene,
Albert Gallatin Chadwick,* Boscawon,
Gilman Colby, Grantham,
James Austen Davis, Lebanon,
Daniel Wright Dimock, So. Coventry, Conn.,
John Frank Fitts, Candia,
Ira Pearson George, Sunapee,
Henry Artemas Gilman, Gilmanton,
James Wallace Gregg, East Corinth, Vt.,
Hiram Tenney Hardy, Thetford, Vt.,
Zenas Millard Kempton, Liverpool, N. S.,
Darwin L. Manchester, Waupaco, Wis.,
Ezra Mitchell, Jr., Groveton,
William Theodore O'Donnell, Lempster,
James Robinson Nichols, Boston, Mass.,
Harris Orlando Palmer, Orfordville,

John Howard Peck, Montpelier, Vt.,
Charles Humphrey Perry, Woodstock, Vt.,

THESES.

Variola.
Anthrax.
Generation in Man.
Alveolar Abscess.
Hygiene.
Hypertrophy of the Heart.
Chronic Ulceration of the Stomach.
Pneumonia.
Contagious Typhus.
Disordered Functions of Digestion.
Saturnismus.
Typhoid Fever.
The Physical Signs from the Lungs.
Variola.
Doses of Medicine.
Causes, Pathology and Treatment of Uterine Displacements.
Intermittent Fever.
Hysteria.

NAMES AND RESIDENCES.

William Wirt Piper, Biddeford, Me.,
 Charles Dudley Prescott, Meredith,
 Andrew R. G. Smith, A.M., Brunswick, Me.,
 Hermon Joseph Smith, A.B., Dover,
 Hiram Watson Tebbetts, Concord,
 Henry Porter Watson, Groveton,
 Adams Brock Wilson, Bradford, Vt.,
 Natt. Wilson Woodhouse, Barnstead,
 Lewis Humboldt Whitehouse, Bangor, Me.,
 Henry Davis Wyatt, Campton,

THESES.

Variola.
Anthrax.
Tuberculosis.
Scorbutus.
Denque.
Typhoid Fever.
Phthisis Pulmonalis.
Diphtheria.
Diphtheria.
Gonorrhœa.

ALBERT SMITH, *Secretary.*

Expectant Treatment of Erysipelas.—In speaking of the recent discussion on erysipelas in the Boston Society of Medical Improvement, the *Pacific Medical and Surgical Journal* says:—

“No mention was made, as far as appears, of the tincture of iron, which is, beyond all question, the most valuable medicine in many cases of the disease. Indeed, we know of physicians who regard this remedy as a specific in erysipelas, and though we have no faith in specifics, we believe they are nearer right than the wise nullopahists of Boston.”

Wounds inflicted by the Needle-gun.—Dr. Bruce, of the University College, London, who has been engaged in studying the effects of the balls employed by the three armies during the recent European war, declares, after a minute examination, that he cannot agree with the opinion generally adopted, that the bullet of the needle-gun produces a less serious wound than that of the Austrian Minié.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 10th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week - - - - -	44	33	82
Ave. mortality of corresponding weeks for ten years, 1855—1865	36.2	36.7	72.9
Average corrected to increased population	00	00	79.2
Death of persons above 90 - - - - -	1	0	1

COMMUNICATIONS RECEIVED.—Donders on Asthenopia.—Treatment of Cholera, by T. W. Shasted, M.D., Pittsfield, Ill.—Enormous Enlargement of the Spleen, by Frank A. Young, M.D., West Charlton, N. Y.—Clinics of Berkshire Medical College, reported by M. L. Bates.—On the Practical Uses of the Laryngoscope and Rhinoscope, by Ephraim Cutter, M.D.

BOOKS AND PAMPHLETS RECEIVED.—An Introduction to Practical Chemistry, including Analysis. By John Bowman, F.C.S., late Professor of Chemistry in King's College, London. Edited by Charles L. Bloxam, F.C.S., Professor of Practical Chemistry in King's College, London, &c. With one hundred and seven Illustrations. Fourth American, from the Fifth revised London Edition. Philadelphia: Henry C. Lea. 1866.—Cerebro-spinal Meningitis. By J. S. Jewell, M.D., Chicago.—Transactions of the Medical Society of the County of Kings, N. Y., for December, 1860, January, February and March, 1861, and for June and July, 1862.

DEATHS IN BOSTON for the week ending Saturday noon, Nov. 10th, 82. Males, 44—Females, 38. Accident, 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 2—inflammation of the brain, 2—burns, 2—cancer, 2—cholera infantum, 1—cholera morbus, 1—consumption, 11—convulsions, 2—debility, 2—diarrhœa, 2—dropsy, 2—dysentery, 5—epilepsy, 1—erysipelas, 1—scarlet fever, 1—typhoid fever, 1—disease of the heart, 3—malformation of the heart, 1—infantile disease, 1—disease of the kidneys, 1—congestion of the lungs, 3—disease of the lungs, 1—inflammation of the lungs, 13—marasmus, 3—old age, 2—peritonitis, 1—puerperal disease, 2—rheumatism, 1—scalded, 1—smallpox, 1—thrush, 1—unknown, 4.

Under 5 years of age, 31—between 5 and 20 years, 6—between 20 and 40 years, 20—between 40 and 60 years, 14—above 60 years, 11. Born in the United States, 53—Ireland, 20—other places, 9.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV. THURSDAY, NOVEMBER 22, 1866.

No. 17.

DR. VALERJ'S INTRODUCTORY LECTURE.

(Continued from page 321.)

Nor last among the wondrous effects of nature are our *instincts* and *habits*. Instinct consists, as you well know, in certain sensations, passions, appetites, aversions, which, independently of the will, urge man to actions, some of which are necessary, others for the most part useful to his personal safety, to the conservation and propagation of his kind. Habit is that faculty which he possesses of being enabled, by the frequent and continued repetition of any act whatsoever, to vary, moderate, augment, and even annul the impressions caused by the various stimulants acting upon his organs, to nourish himself with variable qualities and quantities of food, to live in different kinds of climate, &c. &c. In life *habit is everything, custom is a second nature*; this is a truth too well known to need any discussion.

In physiological books you will find an ample store of facts upon this subject, as instructive as they are astounding. In the mean time bear well in mind the existence of these two faculties—*instinct* and *habit*—for in the cure of diseases you will find that they exercise a great, though inexplicable influence. How often must we not recur to the habitudes of the patient in regulating the diet, measuring the doses, and the effects of certain remedies? How often must not our curative indications be guided by the mysterious physical or moral impulses of the patient? "*Inest aliquid sapientie in aegrotantibus instinctibus*," exclaimed Boerhaave.

Nor is this the whole category of faculties resulting from the special forces, concordantly and harmoniously acting in our organism; but I have pointed out the principal, and deem them sufficient to make you understand how in the living man all the organs, with the functions, powers and laws derived therefrom, constitute him a *perfect economy*; that is, an aggregate of natural and special causes and effects, which, in perfect order, according to fixed methods, and within proper limits, incessantly tend towards its conservation, "*quae nocte atque die nostris rebus invigilat, contulitque*." It is just to this aggregate, conformably with the definition quoted from Sydenham,

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that we have applied the term *Nature*, apprising you, at the same time, that we shall henceforth adopt it in a like sense; a sense unanimously received by all those physicians who, following the doctrine of Hippocrates, cultivate the medical art with positive advantage to humanity.

Having thus defined the word *nature*, explained its import, and enumerated the principal laws by which it operates in conserving the individual, let us now enter upon the field which more directly concerns us—that of pathology.

Firstly, then, how does nature act in treating with diseases? It is an axiom as ancient as medicine itself, as unanimously proclaimed by the most renowned physicians of all ages and countries as any obvious and common truth can be, that nature cureth diseases. "*Morbis natura medetur*," says Hippocrates, and Sydenham emphatically expresses himself in a like sense as follows:—" *Natura sibi permissa negotium suum in morbis suo tempore exequitur, materiamque morbosam debito ordine ac viâ tum secerñit, tum etiam expellit; nostrâ ope, nostris artificiis, atque auxiliis non indigeat, suis viribus instructa, suis operibus locuples, suo tandem ingenio satis edocta.*" In a similar tone, and in phraseology not less impressive, has this truth been proclaimed by Baglivi, and a host of other standard medical practitioners; nor can we peruse a single treatise on pathology or clinics of any account, without finding therein this truth beautifully expounded. This fact, so auspicious for humanity, that nature cureth diseases, might be demonstrated, *à priori*, as a consequence of the definition laid down; namely, that nature, being the cause of man's conservation in his healthful state, must therefore also be a medicatrix in his after state of infirmity. But we should rather prefer carrying out our reasoning by actual proofs.

It is an ever-occurring observation, numerous and striking examples of which you will shortly witness, that out of ten maladies there are two thirds that cure of themselves, thus forming, by their *natural course*, the numerous class of those that terminate happily through the sole influence of the vital motions. Fevers, inflammations, dropsies, bloody fluxus, exanthemata, neuropathies, sores, tumors, &c. &c., not unfrequently heal spontaneously. And not only this, but we find that even pestilential maladies, epidemics, cholera, dysentery, and even the plague itself, are overcome by the sole aid of nature. Never shall be forgotten the fact related by Santorio, a professor of the seventeenth century in the University of Padua, namely, that, of the population affected with the plague, the nobility and wealthy who received medical aid succumbed, while a considerable number of the indigent who were left to themselves recovered. "*Nobilium fere nemo cum remediis sanatur, qui peste laborat, Plebei vero sine iis plures sanantur.*" (Sect. I., affect. 139.) The same may be said of many other maladies, which terminate more happily without the aid of art than with it; the reason of which is most clear, for when nature suffices

of herself to effect the cure, the intervention of the physician and his remedies only act as an obstruction to her perfect operations. Nature frequently resembleth some classic artist executing with incomparable skill a perfect work. Even the slightest touch from another artist, however skilful, could only mar its beauty. When Raphael's pencil, or the great hand that sculptured the *Apollo Belvidere*, were working out their masterpieces, which we so highly admire, could other hands, even the most practised, have touched without spoiling them? The similitude, though unhappy as to the subject, is perfectly *apropos* with regard to the result. And, alas! how often do we not only lack skill, but also, unmindful of the natural course of diseases, militate against, ruin and destroy by *ill-timed indications* and violent remedies the sublime workings of nature, entirely directed towards curing them? "*Natura omnia omnibus sufficit*," exclaims Hippocrates, and self-taught, "*nemine edocta, saepe novum opus exorditur ubi conatus nostri desiere*," adds Baglivi. As she is the efficient cause of health, it is quite natural that she protect it from those vicissitudes apt to disorder it; and this she does by means to us sometimes mysterious, but generally most perceptible.

And what are these means? You are already aware that I would allude to certain crises, or great perturbations, which occur in the course of maladies, accompanied or followed by excretions, or abundant deposits of morbose matter, as, for instance, perspiration, hæmorrhage, an abscess, diarrhœa, sedimentose urine, &c. "*Crisis, aut judicium fit in morbis, quando et magnæ perturbationes accidunt, et nova apparent phænomena; subito, simulque hæc apparent sequuntur vel et comitantur insignes excretiones, vel dispositiones humorum in loco quodam corporis, id est abscessus*," &c. (Van Swieten, vol. v. p. 34.) You are aware of the many dissensions which have arisen concerning the subject of the crises, and that certain solidists have denied or considered doubtful their existence, holding them as a deceit, a mere effect of superstitiously deluded observation. To my mind the best confutation that could be instituted against this class of physicians would be that of inviting them to visit some hospital, thus imitating Diogenes, whose sole reply to the sophism of Zeno against the *possibility of motion* was to invite him to take a walk through the portico. In that hospital, or in any other assemblage of patients, they might witness, for instance, an epistaxis which frees a plethoric subject from a congestion or cerebral hæmorrhage, already on the point of bringing him to the grave; a profuse perspiration which dissolves a rheumatism; a fit of vomiting which puts a term to a colic of the stomach, occasioned by an indigested meal, or by the absorption of a poison; an abscess, an aposthema which arrests the danger of a malignant fever; a bilious diarrhœa which resolves the jaundice; an abundant expectoration which arrests a violent paroxysm of asthma, or voids a vomica which threatens life itself; a purulent urine which in the course of one night does away with an abscess, which the surgeon's

hand was about to open on the following morning; a parotitis which brings to a favorable issue a maniacal delirium, or a violent nervous fever; a succession of boils which cure a quartan ague, that had for several months been the *opprobrium* of the physicians, or a convulsive cough which had resisted manifold remedies; a profuse diuresis, vainly sought to be promoted by numerous diuretics, which, brought on by the supervention of a passing fever, voids a frightful ascites, resolves an anasarca; and so on with analogous cases. I could, in fact, pass in review the whole lengthy series of the various kinds of diseases, and prove to you by similar facts, that these crises, or evacuations, constitute the sensible mode by which nature oftentimes effects their cure without the physician's aid. I have enumerated to you such of them as occur most frequently, and have chosen those which, impressing more deeply the practitioner's attention, do not easily pass unobserved. What though the crises are sometimes not very manifest, because effected without any exacerbation of the symptoms which usually accompany them, and by the evacuation of matters not copious nor profuse, but rare and thin, and escaping in an unaccountable manner; they nevertheless occur, nor escape the attention of a mindful observer. In maladies of long duration, in which the patient slowly recovers, it is quite natural that we cannot notice great perturbations previous to, or simultaneous with, great crises; and it is logical to conclude that all the various secretions can and must eliminate the morbose matter through their respective emunctories in the same manner as it is gradually matured by nature in the affected organism. In proof of this, we find that slow nervous fevers improve after some weeks on account of no other evacuation than a slight general mador, sustained for several days on a skin which at first had been arid and dry; ancient, deep congestions of the liver are insensibly improved by the intervention of alvine matter somewhat dissimilar in quantity and quality to what it is naturally. How frequently occurs a particular odor of the perspiration or of the breath, a change, apparently indifferent, in the urine, all which relate to the degree of improvement observable in the course of the malady; and thus pass off unnoticed by the physician, so as to induce him to think that the disease terminated without any crisis. Critical absorptions, too, followed by critical emissions of morbose matter must, and really have several chronic affections which are also cured by the mere efficacy of nature, aided only by a simple change of air, food, system of life, by the organism entering into a different period of age, by the mere relinquishment of a false curative method, &c. Do we not, in fact, behold glandular tumors, hypertrophies of certain viscera, splenic cysts, chronic rheumatisms, dermatoses, &c., spontaneously and gradually resolve themselves? and whereas none of you can deny that all these are infirmities *cum materiâ morbosâ*, it follows that, once granted their natural recovery, they must also have gone through the process of maturation, absorption and elimination

of the said matter. An instance drawn from a serious, and unluckily in our country very frequent malady, will serve to illustrate our argument. A man becomes apoplectic from cerebral hæmorrhage, but fortunately recovers, finding himself, however, hemiplegic: after a few months, more fortunate still, without having had recourse to a physician or medicine, he recovers even the use of his limbs. Now, in this case, there was an extravasation of blood in the brain, and to the end that the patient might recover, nature was forced to absorb it, but previously to the absorption, to transform its globules and other component parts by a metamorphosis not dissimilar to that by which we see large ecchymoses resolve themselves after external contusions. Now, once absorbed, we must necessarily conclude that it must be also eliminated from the economy by some of its emunctories, or that this blood effused within our tissues (the same may be said of the humors that have degenerated and have lodged for a long time in the viscera) may, after having been re-absorbed, and as a necessary condition for the re-absorption previously transformed, may, I assert, be re-composed, and return once more to constitute an integral and reconstructive element in the mass of vital fluid. Now this second conclusion, although it seems not unreasonable when we consider the powerful resources of our economy, we are far from being able to prove; while, on the other hand, the former fully tallies with the doctrine of the crises, and is daily attested by facts minutely observed.

[To be continued.]

TWO CASES OF NODULES UPON THE VOCAL CORDS, OF PROBABLE SYPHILITIC ORIGIN.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By HENRY K. OLIVER, M.D.

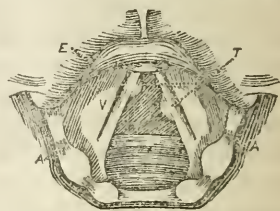
CASE I.—*Extreme Hoarseness of a Year's Standing; Nodule upon each Vocal Cord.*—Mr. M., an Italian, aged 38 years, came to me on the 25th of May, 1866, for extreme hoarseness of a year's standing. His history is as follows:—General health always good. Two years previously he had a single chancre, followed some time afterwards by an eruption of the skin. Is not aware of having had swellings in the groin. Has had sore throat and "canker" in the mouth.

About a year subsequent to the appearance of the chancre he began to get hoarse, the high notes of the voice being first affected. This hoarseness has continued to increase till the present time. Has employed various remedies for this symptom, but has had, as far as can be made out, no continuous treatment for the constitutional affection.

His present condition is as follows. He appears to be in perfect health. Upon examination, the inguinal glands seem to be some-

what larger than natural. On the surface of the body no appearances are seen of a venereal character, and nothing unusual is seen in the mouth or fauces, except a slight injection of the mucous membrane of the latter. No soreness of the throat is complained of; no pain on swallowing; no difficulty in breathing; but little disposition to cough, and no expectoration. Pressure over the larynx produces no pain.

On examination with the laryngoscope, a nodule was seen on each vocal cord. The one on the left cord occupied a point half way between the anterior origin of the cord and the vocal process; it had a broad base, was white and glistening, and was of the shape and relative size as seen in the adjoining cut. The nodule on the right cord was more anterior, smaller, and more rounded, but of the same color. When the cords were approximated in phonation, the nodules came one immediately behind the other. The mucous membrane of the cords was red, and the membrane of the whole interior of the larynx and of the trachea, as far as seen, was somewhat injected.



E points to the epiglottis; A to the ary-epiglottidean fold; V lies upon the right ventricular band (false cord); T points to the nodules upon the vocal cords.

Feeling pretty confident as to the venereal character of the affection, I decided not to attempt surgical interference with the nodules, but to put the patient upon iodide of potassium, with tincture of iodine to be applied to the throat externally. In order, however, to hasten the absorption of the nodules, I determined to touch them with the solid nitrate of silver. I therefore melted a small bead upon the end of the silver probe, and seizing the moment when the glottis was closed, I touched both nodules at one thrust. Moderate spasm followed, and upon examination subsequently both nodules were seen to be tipped with a white coating.

On June 7th, I saw the patient again, when there seemed already to be a slight change in the voice for the better. On examination, the nodule on the right cord was manifestly smaller than on the first visit; that on the right was of about the same size as before, but had its mucous covering somewhat abraded. I again touched with the solid nitrate of silver, and ordered the continuance of the treatment.

Subsequently, I saw the patient weekly, each time employing the nitrate as described. The nodules continued to decrease in size—and the voice to improve correspondingly—until July 10th, when they had almost entirely disappeared, and in their place only a slight bulging could be seen. The general injection of the mucous membrane was very slight. The voice was exceedingly improved, so much so that but little change from a natural tone was observable, except in the highest notes.

With the hope of restoring the cords to their complete normal condition, I continued the treatment, and also applied the nitrate of silver occasionally, until Sept. 11th, when the bulging on the right cord had entirely disappeared, and that upon the left was with difficulty discerned. Patient could now use his voice, even in singing the high notes, with but slight change from the healthy tone. It is probable, however, that the free edge of the cord has been permanently affected, as the highest notes, in singing, are not entirely clear.

Remarks.—Affections of the larynx as a consequence of syphilitic taint are ranged among the later manifestations of the disease. The only exception to this rule is the appearance of mucous patches in the larynx, which, according to Gerhardt, occur among the secondary symptoms. This opinion is not, however, accepted by other authorities. In the case just described, the affection of the throat seems to have been the first and only symptom of the later phase of the disease. The nodules undoubtedly consisted of an inflammatory exudation into the submucous cellular tissue, which had become more or less organized into fibrous tissue. According to Dr. Wilks, the disposition of constitutional syphilis, "in the larynx as elsewhere, is to the production of lymph, which may subsequently become a tough fibrous tissue."

CASE II.—*Hoarseness dependent upon a Papule upon the right Vocal Cord.*—This occurred in a male, aged 32, who came to the Massachusetts General Hospital as an out-patient in April, 1866, principally on account of an ulcer of the leg. He, however, complained of hoarseness, and was requested to come the following day for laryngoscopic examination. Before my arrival, Dr. J. Collins Warren, Surgical House-Pupil at the Hospital, made an examination, and discovered a papule upon the right vocal cord.

My notes of the case have been mislaid, but, according to my recollection, the patient confessed to having, at some time, chancre with one open bubo. He did not remember having any eruption of the skin or other secondary manifestations of syphilis. Three or four months before, he noticed a pimple on outside of left leg which broke and remained open, increasing in size to the present time. Hoarseness commenced two weeks ago; first noticed it while singing; this had increased gradually. No pain or soreness in throat. On examination, a deep ulcer three fourths of an inch in diameter, surmounting a hard infiltrated swelling, is seen in the locality above mentioned. No other manifestations of syphilitic taint are to be noticed.

The voice is moderately hoarse, and the upper notes are quite unavailable. The papule upon the vocal cord is situated on the free border, about at the middle of its length. Its color is whitish; its shape is much like the nodule on the left vocal cord in Case I., though it is smaller and less prominent. The membrane of the affected cord is somewhat injected in the vicinity of the papule.

Being desirous of watching the course of the affection, an innocent gargle was ordered as a *placebo*. The patient, however, ceased to continue his visits after a week or two, during which time the papule seemed to be stationary.

During the patient's attendance at the Hospital, several of the physicians and surgeons of the institution had an opportunity of seeing the morbid appearances in the larynx.

Although the history of this case did not point so clearly as in Case I. to a syphilitic taint, yet it seemed probable that this was the source both of the ulcer on the leg and of the throat affection.

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Concluded from page 302.]

THESE two diseases resemble each other in almost every respect, except in reference to the eruption and where the functions of the brain are implicated; also, cerebro-spinal meningitis is by far the more severe, being fatal in a shorter time and in a larger proportion of cases.

Murchison, speaking of the convulsions which are often met with in typhus, says, "No appearance is ever found within the head to account for the convulsions." "It is now tolerably certain that convulsions occurring in the course of typhus have always a uræmic origin." Again, in speaking of the cause of the palsy which sometimes occurs, he says:—"Although the nervous system may be primarily at fault, the palsy is really due to an exaggeration of the muscular atrophy which, to some extent, is always produced by typhus." He remarks, with regard to the *post-mortem* appearances found in the head, that they rarely, if ever, show that inflammation of the brain or its membranes has been present, even as a complication. "The cerebral membranes often exhibit increased vascularity, but never any deposit of lymph or pus, indicative of recent inflammation." "The increased vascularity of the cerebral membranes in typhus must not be regarded as a sign of inflammation, and does not account for the cerebral symptoms observed during life." "In the majority of cases, where there is increased vascularity of the cerebral membranes in typhus, some impediment will be found in the pulmonary circulation, or there has been evidence of greatly impaired cardiac action. The congestion, in fact, is mechanical or passive, never active." Hæmorrhages on the arachnoid occur, but have no connection with cerebral symptoms. "Increased effusion of serum within the cranium is one of the frequent morbid appearances." "It never contains any flakes of lymph or exudation corpuscles." "The increased amount of serosity within the cranium is no sign of inflammatory action, and accounts, in no way, for the cerebral symptoms during life."

These are the strongest statements I have been able to find opposed to the presence of inflammation within the cranium during typhus; and if they were correct, it would be necessary to admit that what has been called spotted fever, or cerebro-spinal meningitis, is a disease distinct from all others. But other authors do not agree with Dr. Murchison, and he has published an article in the London *Lancet* for April 22d, 1865, wherein he declares himself to have been in error with regard to the presence in typhus of inflammation of the brain. He says:—"In rare cases, typhus fever is complicated with unmistakable inflammation of the membranes of the brain. At the time of the publication of my work on Fevers, I was under the impression that this complication never occurred, but subsequent experience has convinced me that I was mistaken. In the interval I have met with two unequivocal cases of typhus complicated with true meningitis and the effusion of lymph on the surface of the brain." He also mentions having lately noticed tetanic contractions and opisthotonos.

Dr. Bartlett notices the symptoms referable to the head, pain, delirium, coma and perverted sensations; he mentions, also, the lesions of the brain observed by Gerhard, Reid, Jenner and Shattuck—engorgement of the sinuses and larger vessels of the brain, effusion of serum under the arachnoid and into the ventricles, and the presence of extravasated blood within the cavity of the arachnoid; and Dr. Clark, the editor of the fourth edition of Bartlett's "Fevers of the United States," says:—"The morbid condition of the cerebral membranes corresponded with the severity and duration of the coma." He noticed, also, a loss of transparency in the arachnoid, which was "in many instances dotted over with opaque white or yellowish white spots, without perceptible elevation, sometimes with distinct elevated grains." He noticed, occasionally, softening of the cortical substance.

Dr. Watson says:—"The unnatural conditions that have been sometimes noted are—slightly diminished consistence of the substance of the brain; congestion of its bloodvessels." "Now to what conclusion do these facts lead us? Why, in the first place, to the conclusion that those pathologists are in error who maintain that the essence of continued fever is *inflammation of the brain*." "Nevertheless, there may be, and there not seldom is, in these fevers, actual inflammation of the brain or its membranes; but this is an incidental complication."

Dr. Wood says:—"No clearly ascertained connection exists between the stupor and the anatomical appearances of the brain. Sometimes, however, clear evidences of encephalitis, such as injection of the membranes, opacity of the arachnoid, fibrinous exudation, and injection and softening of the substance of the brain, are presented in cases which have exhibited signs of active cerebral inflammation during life."

Cerebral inflammation is, then, acknowledged to occur in typhus, but it is a very rare complication.

The other point in which there is a dissimilarity, is the time at which the spots appear. The character of the eruption is nearly the same in both diseases. Dr. Murchison says:—"It is composed of numerous spots of irregular form, varying in diameter from three or four lines to a mere speck, which are either isolated or grouped together in patches, presenting a serpigenous or very irregular outline, and often closely resembling the eruption of measles. At first these spots are of a dirty pink or florid color, and very slightly elevated above the skin, and they disappear upon pressure; but after the first or second day, they usually become darker and more dingy, they resemble reddish-brown stains, are no longer elevated above the skin, and do not disappear, but only become a little paler on pressure. They have no defined margin, but merge insensibly into the color of the surrounding skin. These spots usually come out first over the abdomen and spread thence to the chest, back, shoulders, thighs and arms." He mentions elsewhere that in the centre of the spots there occurs at times a change into petechiæ, giving rise to three stages in their progress, though the last may not always be seen. Other accounts of the eruption of typhus so nearly agree with this that it is unnecessary to quote them.

We find almost precisely the same description of the eruption in cerebro-sinal meningitis. Surgeon Wales, U.S.N., says:—"The spots assumed the form of small, round ecchymoses, of various sizes, from the head of a pin to the size of a split pea, of a light red color, like the bites of fleas. As the case advanced, the splotches increased in size and coalesced, forming larger ones, or, properly, patches, and in bad cases assuming a livid or purplish color. Again, the form was that of reddish streaks, as if caused by striking the parts with a bundle of twigs. In all cases the eruption was even with the skin, and appeared first upon the extremities, generally the upper, and then on the face and trunk."*

Dr. Woodward, of Brandon, Vt., in an article in the *American Medical Times* for May 14, 1864, says, "The spots from which the disease has taken its name are not unlike the spots seen in enteric and typhus fever, presenting in a few cases all grades, from the rose-colored rash to the deep and permanent (under pressure) petechiæ." Many mention that the eruption resembled that of typhus. Dr. J. B. Upham notices the similarity. "Petechiæ were not an unfrequent manifestation—in appearance almost identical with the true typhus eruption, and like that seen upon every part of the body, except the face."† The color, as noticed by others, was sometimes light and sometimes dark. Dr. Burns, in one of his cases, found it bright colored, like rubeola.‡ Dr. Gerhard gives a very minute description of the eruption. They varied in size from the head of a pin to a

* American Journal of Medical Sciences, Jan., 1864.

† Boston Medical and Surgical Journal, vol. lxviii.

‡ American Journal of Medical Sciences, Jan., 1865.

quarter of an inch—were sometimes confluent. “Each spot was of a dull-red color, almost purple in some cases, varying in shade, for the most part not at all affected by pressure.” “The spots were not in the slightest degree elevated above the surface.” “The spots appeared usually at the end of twenty-four hours, but sometimes even sooner.”*

In previous epidemics, the eruption is also described as being sometimes light colored and sometimes dark. The committee of the Massachusetts Medical Society, in 1810, described the spots as “florid and fiery. An appearance like measles has also been noticed.” Dr. North says, “they varied from a common to a very dark purple.” Dr. Gallup says, “they sometimes resemble petechiæ, or flea-bites, as described by writers, happening in other diseases, of a dark hue; sometimes of a brighter color.”

Foreign observers do not so frequently mention the color, merely saying that petechiæ were present. Maillot says:—“The skin is very warm, dry, and presents disseminated over the body and limbs, a large enough number of spots of a deep red, irregular in form, unequal, not disappearing under pressure.”†

The eruption was, then, if not identical, at least nearly so, in the two diseases, not only during the late epidemic, but in former times and in other countries.

It is necessary to account for the difference of time at which it appears. It has been stated that the eruption is due to an effusion or extravasation of blood beneath and into the cutaneous tissue. The earlier and more thoroughly the blood is disorganized the sooner this extravasation might be supposed to occur, and the darker would the eruption be, even in the first instance. The fearful rate of mortality and the very short duration of the fatal cases would lead to the conclusion that this disease causes more sudden changes in the tissues and blood than common typhus. Supposing it, then, to be only an unusually severe form of that affection, the early disorganization of the blood would be expected to occur, and the early appearance and darker hue of the eruption follows as a natural sequence, and can no longer be stated as an argument against the identity of the diseases.

The eruptions in the two diseases being identical in character, the difference in the date of their appearance being explained by the much greater severity of the disease in one case than in the other, there remain no differences between typhus and cerebro-spinal meningitis to be reconciled, except those which refer to the lesions of the brain and spinal cord.

The earlier appearance of convulsions and delirium would depend on the brain being directly affected at that time, whereas in common typhus these symptoms are not usually exhibited until a later stage, when the blood has been charged with urea or ammonia. It has,

* American Journal of Medical Sciences, July, 1863.

† Gaz. Med. de Paris, 1848.

however, been mentioned that lesions of the encephalon have been noticed as one of the complications in typhus.

The difference in the regularity of the pulse may also depend on the affection of the cerebral centres.

There is one appearance which has not been explained, the effusion of lymph in the pericardium, which occurred in two cases, and has not been mentioned in connection with typhus. But ecchymotic spots on the heart and softening of that organ have been noticed; also pericarditis and endocarditis, by Jacquot.

With regard to the treatment of typhus, Dr. Murchison, after speaking of the means to be used to prevent the generation and extension of the disease, considers the means of cure. He advocates free ventilation, supporting diet and pleasant, cooling drinks. He discountenances bloodletting. "Modern observation has shown that the effect of bloodletting in typhus is to increase the mortality; while even in the patients who recover after it, the nervous symptoms occur sooner, and with greater intensity, and are of longer duration, the eruption is darker and more copious, and convalescence is greatly retarded." He is in favor of alcoholic stimulants only to a moderate extent, and when the heart's action is weakened. Emetics are useful only at the commencement, and violent purgation is injurious. He does not speak of opium in such high terms as some who have employed it in cerebro-spinal meningitis, but he recommends its use when there is delirium, restlessness or sleeplessness; that is, when cerebral symptoms appear.

Dr. Graves advises the employment of nearly the same course of treatment.

And so, also, other authors advocate the judicious use of stimulants and a supporting diet; discountenance all that debilitates, and allow abstraction of blood only to counteract local affections.

By referring to the treatment of cerebro-spinal meningitis in the preceding pages, it will be seen that essentially the same method of treatment is used in that disease as in typhus.

If we compare, also, the causes of the two diseases we shall find a striking similarity. "Typhus is often observed to be most prevalent in the latter half of winter, in the spring and beginning of summer, and many epidemics have declined rapidly towards the end of summer;" but "epidemics of typhus appear to commence and progress irrespective of the season, so long as other known causes of the disease continue in operation." Again, "the ordinary variations of temperature, in this climate, have little influence over the prevalence of typhus."* The same author enumerates the causes of typhus—debilitating influences, as intemperance, fatigue, previous illness, destitution and privation; "exposure to cold and wet, especially if long continued, has a depressing influence on the nervous system, and so favors the advent of typhus."

* Murchison.

"Over-crowding of human beings, with deficient ventilation, is one of the most powerful predisposing causes of typhus."

All the influences here enumerated have been noticed in preceding pages as predisposing causes; the evidence would rather indicate that season and the state of the weather had more influence than Dr. Murchison concedes to them; but the facts are not, perhaps, sufficiently numerous to make any positive statement.

The principal agent, in many cases, in causing typhus, the exciting cause—contagion—is thus mentioned by Dr. J. B. Upham in his little book, "Typhus Fever in Great Britain":—

"And yet the disease should not be held as contagious in the same sense that smallpox is contagious; i. e., that it is invariably and virulently so. Certainly the sphere of action is more limited—the communication of the poison more dependent on circumstances—and the morbid influence more within the control of sanitary laws and regulations, than in the usual zymotic or so-called contagious maladies. It may be stated as a general rule, that the contagion, to be effectual, must be concentrated by the crowding together of patients—or accumulated and aggravated in ill-ventilated and pent-up rooms—or stimulated by the conjunction of other unfavorable hygienic conditions—ill draining, filth, effluvia, &c. &c.—or the recipient have been previously subjected to the predisposing causes by deprivations, hardship and want, excesses, anxiety, fear, despondency, mental and physical exhaustion or debility from any cause, till his system has been brought to a point below the power of resistance." In a note he adds:—"I am aware there are many apparent exceptions to this rule. Instances are on record, some of which have occurred in the experience of the writer, where persons exposed to isolated cases have received the contagion."

It is hardly necessary to extend the quotations; all authors agree on these points in every important respect. Possibly Dr. Upham does not lay so much stress on the influence of contagion as some.

If it is possible to classify any epidemic under a disease already described and recognized, it would be erroneous to establish a new species on account of slight differences which are easily accounted for.

There is almost an exact agreement between these two diseases in the symptoms and *post-mortem* appearances, except in reference to those dependent upon lesions of the cerebro-spinal system. The causes and treatment are essentially the same. We must conclude, then, that epidemic cerebro-spinal meningitis is only epidemic typhus, wherein, from some cause, the cerebro-spinal system is the principal seat of the attack.* By this classification the great variety in the

* It may not be uninteresting to notice that about the time when the cerebral form has prevailed, on each occasion, there has been a subject which agitated the people very generally, and caused much public discussion. Thus between 1807–14 there were the difficulties with Great Britain; from 1819 to 1827 there was more or less discussion of the slavery ques-

symptoms is more easily explained, and the epidemics in which the pneumonic form was most frequently seen were true typhus, less frequently complicated with lesions of the brain.

SIMPLE APPARATUS FOR THE TREATMENT OF FRACTURES.
CASE—FRACTURE OF THE LEG IN AN EPILEPTIC.

[Read before the Norfolk District Medical Society, Nov. 14th, 1866, by WILLIAM H. CAMPBELL, M.D., of Roxbury.]

THE value of any useful invention is always enhanced by its simplicity, and yet further increased by its cheapness and the facility with which it can be obtained.

In the surgical branch of our profession, there is a constant stream of new methods and of new kinds of apparatus for the treatment of disease or injury. Many of these are very useful, but nearly all are expensive and require the skill of a practical mechanic to prepare them. In the treatment of fractures this is especially true. Most kinds of apparatus are so complicated and costly, that they are not available in private practice, except to a very limited extent, as it would require a small fortune to set up in business a practitioner who aspired to have the half of a required outfit.

Some of these disadvantages have been obviated (at least for the country practitioner) by such contrivances as the "fracture-bench," made use of and described some time ago by a member of this Society, and which recommends itself at a glance to any practical man at all acquainted with the subject (see *Boston Medical and Surgical Journal*, Feb. 13th, 1862, p. 37), and the simple apparatus for fracture of the thigh (*Ibid.*, Sept. 19th, 1861, p. 129) used and described by another member.

The object of the present paper is to call attention to a splint which I have tried and found to be all that can be desired—being cheap, easily obtained, very light, sufficiently strong for all practical purposes, and readily adjusted to fractures in almost any situation; and, further, it can be prepared on the spot by the surgeon himself, from materials which may be found in almost every house. It consists of a splint made from ordinary pasteboard (binders' board is better, but the fragments of an old pasteboard box will answer for most purposes), strengthened by a strap of hoop-iron.

The board should be cut to a suitable shape and the iron band

tion, resulting in the Missouri Compromise in 1821, and parties were so nearly equal that no election of President was made in 1824, and the choice devolved upon the House of Representatives. In 1843, the war with Mexico commenced and continued two years. In 1861 was the commencement of the late epidemic, synchronous with the late rebellion, though excitement existed previously in a slighter degree. In France, from 1836 to 1848, political excitement existed, which ceased only after Louis Napoleon became Emperor. Later, at Dantzic and other German cities, where the disease has prevailed, there has been the Schleswig-Holstein question, which has aroused the people.

Thus, we see that, during each of the great epidemics, there has existed one or more questions upon which the people thought much, having their sympathies and passions excited. Had this mental agitation any influence in causing the cerebro-spinal form of the complaint?

riveted to it, which is a very simple process, requiring no tools but a hammer and a punch or brad-awl to make the holes in the iron. The rivets (the head ends of common nails will answer) may be placed at intervals of two or three inches, or thereabout. After the iron is secured, the board may be wet or otherwise softened, and formed to the shape of the limb. It may then be padded with cotton, applied to the part, and secured by a bandage in the ordinary way. This makes a very neat, light, and exceedingly firm apparatus.

In illustration of its value, I will give the following case:—Louis A., æt. 16; epileptic; in poor circumstances; fell from a fence and fractured both bones of the right leg—the tibia at the middle, the fibula about two inches higher. The lower fragment of the tibia rode upon the upper in front, and nearly penetrated the skin.

As the fits occurred daily, it was necessary to put on apparatus that would be firm, and not easily displaced. I was somewhat at a loss how to proceed—not being content with anything in common use—when a professional friend showed me one made as above described, which recommended itself at once as being most suitable. So without hesitation I adopted it.

I took two pieces of stout pasteboard, cut in the form of the figure in the margin, and wide enough to nearly encompass the limb, leaving only a small space before and behind. To each of these



pieces I riveted strips of hoop-iron, running longitudinally, *a a*. The lower part of the board, and the iron below the dotted line *b b*, were turned up to a right angle with the leg part, to form the foot-piece, and the leg part so bent as to fit the swell of the leg, and to prevent pressure upon the malleoli.

Thus prepared, the boards were dampened and moulded in proper form, and the fragments being adjusted, the splints, well padded with cotton wadding, were applied and secured by a single headed roller bandage from the toes to a short distance above the knee. The apparatus seldom needed re-adjusting, but I examined it occasionally to see that no undue pressure was made on any part.

The patient continued to have the fits—sometimes two or three in a day—during the greater part of the treatment, but without disarranging the apparatus. He even fell out of bed on one occasion, and was put in again by the family, without injury to the leg. He rolled about the bed at will, and took any position he desired, the lightness of the splint not hindering such motions, while the foot-piece prevented any displacement laterally or downward.

The result in this case was indeed very satisfactory. Applied as now recommended, I believe this pasteboard and iron splint to be as good as the starch bandage or plaster of Paris, in cases where they

are applicable, and better in some instances; besides being suited to a greater number of cases on account of its greater lightness and strength; and, further, it is more readily obtained and more easily applied.

Another advantage is, that it can be adapted to fractures in almost any part, a little ingenuity on the part of the surgeon being all that is necessary. The material is always at hand—a piece of handbox and an old hoop being usually at hand in almost every house. Even if we have to go to a shop for the material, it is inexpensive, which is of great moment in practice among the poor.

I do not claim originality in this matter—possibly it may have been often tried before—but I merely wish to call the attention of the profession to the subject as one well worth consideration.

DISLOCATION OF THE HUMERUS FROM A SINGULAR CAUSE.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I send you a brief item of a dislocation of the humerus from a singular cause.

J. P., middle aged, tall, very muscular, knocked the bung from a large cider cask. The cider, fermenting, poured out, and he, with his extended arm, attempted to stop it, but the expansive force of the liquid threw his arm upwards and outwards so suddenly, and with such violence, as to dislocate the head of the humerus downwards and inwards under the pectoral.

The dislocation was readily reduced without ether, the patient being a little faint.

Among all the causes of dislocation that have occurred in my experience this stands alone, and I thought it might amuse you, if not the readers of the JOURNAL.

Yours, G. J. TOWNSEND.

South Natick, Nov. 16th, 1866.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 22, 1866.

HASCHISCH CANDY.

It is well known that quite serious, sometimes fatal effects are caused by eating confectionery which is colored by poisonous quantities of mineral salts, and analyses have frequently proved that the brilliant reds, greens and yellows, which are so attractive to children, are often only sugared preparations of arsenic, lead, and other dangerous substances. These pigments are not used, however, we are sure, by confectioners of good standing, and although the coloring matters generally employed for such purposes would not add to the

enjoyment of the lovers of these sweets were their true nature known, they are at all events harmless. Within a short time, a candy has been largely manufactured and advertised in the newspapers for public sale which is openly stated to contain a powerful and dangerous drug. Those who are engaged in this nefarious business rely also for its general introduction and consumption upon the popular descriptions which have been published within a few years of the pleasing effects of Haschisch upon the human system, of the delightful visions and care-dispelling trances it occasions, and upon the illuminated and suggestive representations of eastern scenes exhibited by them in the shops to attract the attention of the passer-by to its seductive properties.

With the physiological effects of Indian Hemp the profession is generally familiar, and although these are widely modified according to individual temperament and the uncertain character of the drug as found in our market, all would consider it a narcotic by no means to be trifled with. How much of its celebrity is due to the imaginative and sensual nature of the Orientals and to the custom of mixing it with opium and other highly stimulating substances which prevails among them is uncertain, but we know that here its administration is seldom productive of the delights which are anticipated. It seems to have been often used in the East for the direct purpose of producing a helpless intoxication, for we read in the story of Aladdin Abushamat how his wife put some bhang into the cup of her father, and "he drank the cup, and fell down upon his back. She then came to Aladdin and said to him, Thine adversary is laid prostrate upon his back, so do with him what thou wilt; for I have intoxicated him, and stupefied him with bhang. Aladdin therefore went in and beheld him stupefied with bhang; and he bound his hands tightly behind him, and chained him; after which he gave him the antidote of bhang, and he recovered his senses." In another of the Arabian Nights' tales it is related that, "when Ali Shir heard these words, he sat and ate with him a little; and was about to take up his hand, when the Christian took a banana, peeled it, and divided it in two, and put into one half of it some refined bhang, mixed with opium, a dram of which would make an elephant to fall down. Ali Shir took it from him and swallowed it, and scarcely had it settled in his stomach when his head fell before his feet, and he became as though he had been a year asleep." It sometimes produces active delirium or a state of catalepsy, and when given in overdoses, convulsions. Although never, that we are aware, directly causing death under these circumstances, the symptoms are frequently alarming, and its habitual use is followed by the same fatal consequences as that of opium, alcohol, and other cerebral stimulants.

How largely *Cannabis indica* is used amongst us for purposes of pleasurable intoxication cannot of course be definitely known, but we believe much more generally than is commonly supposed. Within six months, we have twice been called in the night time to attend persons, previously unknown, who exhibited its poisonous effects to an alarming extent, from eating this same Haschisch candy. On inquiry, we found that one of the patients had often taken it before, and that many of her friends were accustomed to do likewise. If the experience of other physicians at all corresponds to ours, limited as it

has been to two neighboring and contiguous streets, the instances of an overdose being of course in small proportion to the extent of its general use, the custom must prevail to a wide and injurious extent. If the manufacture of this candy cannot be prohibited or its sale restricted in this country by law, the public should at all events be made acquainted with its dangerous character.

DEATH OF DR. WILLIAM E. TOWNSEND.

It is our painful duty to record the death of Dr. William E. Townsend, who succumbed to the choleraic poison, after an illness of a few hours, on Saturday last. Dr. Townsend had been a member of the profession for twenty-two years. Educated at the public Latin School of this city, a graduate of Harvard University, well reported of at school and college, he had fulfilled the promise of his youth. Each year was marked by improvement. Conscientious, faithful and tender in the discharge of all duties as a practitioner, a friend, a son, a husband and a father, his departure is a great loss. Mindful of all obligations to his fellow men, he neglected neither the service nor the worship of his God. The father, who survives him, and towards whom the sympathies of his professional brethren naturally flow, may be comforted in his great bereavement with the assurance that the good example, the wise precepts, the judicious training have been proved in many years of active usefulness, and that the kindly ministrations to the poor and afflicted which so characterized the departed, are recorded as done to the Master whom he served, and in whose presence the souls of the faithful enjoy a perpetual rest and felicity.

Messrs. Editors,—I think the profession generally will thank you for your article in a recent issue of the *JOURNAL* on the subject of the "Inconsistencies of the Press." May it prove to be the entering wedge in the reform of so reprehensible a custom as the indiscriminate advertising of quack medicines. At present, as is well known, the better class of English newspapers refuse these obnoxious advertisements altogether. On looking over the *Boston Post* of Oct. 15th, I found the following, taken from an exchange:—"A pill-box factory in Bristol, Vt., uses up three hundred cords of birch wood per annum." The *Post* adds, "and the pills create a demand for as many more cords for coffins." It instantly occurred to me that the good work had begun with us, too, and that one paper at least would be found exhibiting some degree of consistency. I was, however, astonished, upon looking over the advertising department of files of this paper, to find that there were two or three advertisements of "sure remedies for special diseases," one of a "discovery which cures every disease that flesh is heir to" by applying it to the scalp, one of pills to procure abortion, and a number of advertisements of "bitters," which is another name for very poor whiskey. Here, I thought, is inconsistency palpable enough. My eye was, however, soon arrested by the notice of a New Cemetery about to be opened in a most delightful and attractive locality, and also by one of "Crude Sulphur for Sale," and I left the perusal with the feeling that there was consistency in the *Post* after all, at least in its advertisements. D.

Messrs. Editors,—The *Homœopathsists* pretend to treat disease by a *like suffering*; *Allopathsists* (pretending or not) often create *another suffering* quite unnecessarily; *Nullopathsists*, if the word means anything, would have *no suffering* at all in their treatment. Now, as the *Rational Physician* attempts this, and to assuage such as arises spontaneously in the course of a disease, as well as to lessen its dangers, the Rational Physicians of Boston and vicinity may well thank the *Pacific Medical and Surgical Journal* for its just appreciation of their efforts in the name it so courteously applies to them—cited in your last number.

A RATIONAL PHYSICIAN.

Treatment of Cholera by the American Missionaries in Constantinople.—The following extract, which should have followed the "Statistics of Success in the Treatment of Cholera," published in last week's JOURNAL, was accidentally omitted:—

"Our main reliance has been upon a mixture composed of equal parts of laudanum, tinct. of rhubarb, and spts. of camphor.* The ordinary dose is thirty drops, but when a second dose has been necessary, we have generally doubled it. We have often given sixty drops, or a large teaspoonful, for the first dose, when the case was severe. In two cases, where there were both severe vomiting and diarrhœa, I gave ninety drops the first dose with the best effect: both patients recovered. This medicine is intended especially for the diarrhœa. When it has been difficult to check the vomiting, we have given another mixture, which we call 'mixture No. 2.' It is composed of equal parts of tr. opii, tr. capsici, tr. sem. cardamomi, and tr. zingiberis. This 'No. 2' has often proved very efficient: dose, thirty to forty drops, or more, according to circumstances. We have put strong mustard plasters immediately, in almost all cases, on the feet and stomach. When the feet and arms have been cold, we have had them rubbed rapidly with rum or brandy, have applied bottles of hot water or hot bricks, and have taken other means to produce heat and circulation of the blood in the extremities. In many cases, these external applications have had a good and decided influence. In a few cases we have stopped the diarrhœa by injections of starch and laudanum. It has been necessary to forbid the use of water *entirely*. Many of the patients who have persisted in the use of water have died: others have been saved with great difficulty. Of course, the patient should eat nothing till the crisis of the disease has passed, and the patient begins to recover. Here has been one of our greatest troubles; the natives think that unless they take a large supply of food they cannot recover their strength. Several have thus brought on fatal relapses."

Medical Intelligence.—The *Gazette des Hopitaux* announces that M. Troussseau has resigned his position at Hotel Dieu; also, the resignation of Cazenave at San Louis.

The observation first made by Drasche, of Vienna, that urea is some-

* This medicine is generally known as the "Hamlin Mixture." It was introduced at Constantinople by the Rev. Cyrus Hamlin, D.D., an eminent American missionary, and has been used by him with great success in the three terrible visitations of the cholera in that city. It was prepared by some of the principal druggists in Constantinople during the prevalence of cholera in 1865, and great quantities were sold and used with marked and happy results.

times found as a crystalline deposit on the surface of the skin in the typhoid period of cholera, has been confirmed in cases of uræmia by M. Hirschsprung. It is found as a fine white powder. The absence of perspiration in these cases seems to show that it is excreted by the sebaceous glands.

Under the heading, Medical Martyrology, the *Lancet* announces the death of Dr. Gunther, chief of the surgical clinique at Leipsic; of the orthopædist, Dr. Klopsch at Breslau; of Liharzik, Surgeon to the Emperor of Austria, at Vienna; and of eleven Prussian Army surgeons of cholera.

A new Journal of Anatomy and Physiology, to be published semi-annually by McMillan & Co., under the direction of Professors Humphrey and Newton of Cambridge, Dr. Turner of Edinburgh, and Professor Wright of Dublin, is announced.

The following programme has been proposed by the Committee for the International Medical Congress, which, as we informed our readers some time ago, is to be held in Paris next August, and those who desire to bring forward communications on these subjects are requested to address their manuscripts to the General Secretary. 1. The Anatomy and Pathological Physiology of Tubercle—on Tuberculization in different countries and its influence on general mortality. 2. The general accidents which cause death after surgical operations. 3. Is it possible to propose to the various governments efficacious measures for restraining the propagation of venereal diseases? 4. On the influence of the dietary of different countries in the production of given diseases. 5. On the influence of climate, race and different conditions of life on menstruation in various countries. 6. On the acclimatization of European races in tropical countries. 7. On the entozoa and entophytes which may be developed in man.

Dr. Hall, Inspector-General of British Hospitals, recently died from an overdose of colocynth.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 17th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week - - - - -	37	38	75
Ave. mortality of corresponding weeks for ten years, 1855-1865	37.8	38.0	75.8
Average corrected to increased population	00	00	82.2
Death of persons above 90 - - - - -	0	1	1

BOOKS AND PAMPHLETS RECEIVED.—Notes on Epidemics. For the use of the Public. By Francis Edmund Anstie, M.D., F.R.C.P., Senior Assistant Physician to the Westminster Hospital. First American Edition. Philadelphia: J. B. Lippincott & Co.—Transactions of the Medical Society of the State of Pennsylvania, at the Seventeenth Annual Session, held at Wilkesbarre, June, 1866.

DEATHS IN BOSTON for the week ending Saturday noon, Nov. 17th, 75. Males, 37—Females, 38. Congestion of the brain, 2—disease of the brain, 3—bronchitis, 2—cancer, 1—cholera, 1—cholera morbus, 1—consumption, 21—croup, 1—diarrhea, 2—diphtheria, 1—dropsy of the brain, 2—dysentery, 1—scarlet fever, 3—typhoid fever, 2—disease of the heart, 3—disease of the kidneys, 1—congestion of the lungs, 1—gangrene of the lungs, 1—inflammation of the lungs, 5—marasmus, 2—old age, 4—peritonitis, 1—premature birth, 2—rheumatism, 1—smallpox, 1—suicide, 1—unknown, 5—uræmia, 1—inflammation of the uterus, 1—whooping cough, 3.

Under 5 years of age, 23—between 5 and 20 years, 7—between 20 and 40 years, 22—between 40 and 60 years, 16—above 60 years, 7. Born in the United States, 46—Ireland, 21—other places, 8.

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DONDERS ON ASTHENOPIA.

BY EDWARD G. LORING, M.D., Baltimore, Md.

[Communicated for the Boston Medical and Surgical Journal.]

STRANGE as it may seem, physicians of the present day, as a class, practise better than they preach. The reason of this apparent anomaly is, that modern medical observation and research have discovered certain laws of nature, and certain actions of drugs, which cannot be explained. Practice has consequently outrun theory, and while the physician is content with rapidly gathering in and making use of these results, medical expounders are often delayed by searching after the reason, which they think it their duty to account for, and in doing this they are farther retarded by having, in order to make themselves intelligible, to make use of antiquated terms, which modern science has either rendered inadequate or even meaningless. Since, too, the mechanical and physical means of examining into nature have been carried to such a degree of perfection, it is difficult for a writer to keep pace, through the medium of the press, with the march of science. Before the work appears, some special research has cut off, in their prime, the author's elaborate theories, while an appended foot-note, in the finest print, has to serve, like a graceful epitaph, as an acknowledgment of decease and an appeal for mercy.

On the other hand, this faith on the part of the practitioner is certainly, whatever it may appear at the first sight, a graceful concession on the part of science to nature—an acknowledgment of ignorance, which wisdom in reality alone could afford to make. It is, in fact, a mild triumph of "empiricism" over the once vaunted and scholastic "rationalism," which medical writers and lecturers are usually the last to admit or take advantage of.

That exceptions to the above exist is most undoubtedly true; and among these exceptions one of the most brilliant is Prof. Donders's late work entitled "Accommodation and Refraction of the Eye." This is partly due, perhaps, to the exact nature of the subject, but certainly also, to a great extent, to the manner itself in which the subject is handled. There are, we venture to affirm, few books—

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perhaps no book—on modern medical literature, whose arguments have, on the whole, been more fairly or more forcibly put, or whose propositions have been more clearly and perfectly demonstrated—no book, in fact, whose aim has been higher or whose object more completely attained. And the writer of these remarks can assuredly say that if exceptions have been taken, or questions raised, they have been so without the slightest spirit of detraction, but merely with the feeling that the eminent Professor, in the ardent zeal of newly discovered and newly applied physical and optical laws, has been carried somewhat away from his original intention; so that the very fears which the author himself expressed at the outset, “of depriving his work of the character of exact science,” have been to a degree realized; and, on the other hand, that by dealing at times too exactly with science, he has somewhat lost sight of nature.

From the nature of the subject, the above is more applicable to the chapter on *Asthenopia* than to the more mathematical portions of the work. It is to this chapter, then, that our remarks will chiefly refer.

In the first place, it has always appeared to us that the use of the word *asthenopia*, in connection with the condition known as *hypermetropia*, is inappropriate. The term implies some want of strength in the eye or its appendages. Were *asthenopia* really, as Donders implies, synonymous with *hypermetropia*, a *hypermetropic* eye would then be the one that was deficient in strength. The strength* of an eye is measured by the amount of its range of accommodation, which depends on the muscular force of the apparatus of accommodation, whatever that may be. Now it usually happens that the total range of accommodation in *hypermetropic* eyes is greater than in *emmetropic*, because their muscular force, by more constant use and exercise, gains increased strength and activity, with a higher development, as do the other muscles of the body under similar conditions. In this sense, surely, a *hypermetropic* eye is not an *asthenopic* eye.

With regard to this, Donders† remarks:—“We should beware of confounding the exciting circumstance with the cause of the affection. The exciting circumstance of the phenomena consists in continued tension in looking at near objects; the cause, on the contrary, is the *hypermetropic* structure of the eye. In fact, *asthenopia* is not the fatigue itself, but the want of power through which the fatigue occurs.” The saying that *asthenopia* is the want of power through which the fatigue occurs, and that the *hypermetropic* structure of the eye is the cause of the fatigue, is simply saying that *asthenopia* is the same thing as *hypermetropia*, or, in other words, that a *hypermetropic* eye is one “which wants power.” Now we can hardly call

* In considering the strength of an eye, no reference has been made to the acuteness of vision, as *amblyopia* is not necessarily a factor of *asthenopia* or even of *hypermetropia*.

† Accommodation and Refraction of the Eye (Donders), p. 261.

an eye which has greater muscular force than a normal eye, while its vision is equally acute, wanting in power. It seems to us exactly the reverse, namely, that *asthenopia* is the fatigue itself, and not "the want of power." For example, a weak man may carry a light load a certain distance with a certain amount of fatigue, while a strong man carries three times as much, but with the same amount of fatigue. The result is the same in both cases, but the causes were exactly the opposite. In the first case it was a deficiency of strength, but in the second an excess of weight; and nobody would call the strong man a weak one simply because he was fatigued by carrying too heavy a burden. Just so a hypermetropic eye is not fatigued because it is wanting in power, but because, though stronger than normal, it is overburdened. Hence the inappropriateness of the term as applied to hypermetropia.

To a certain extent Donders is not responsible for the word *asthenopia*, since it existed before he wrote, though it never did in the sense in which he uses it. It was used by former practitioners as one of those convenient cloaks, so often employed in medicine—a garment, by the way, still in fashion—to cover what their intellect could neither understand nor explain. It was applied to a certain set of symptoms whose causes could not be fathomed. It was to ophthalmic surgery, what the terms jaundice and dropsy were formerly to general practice.

Donders brought forth and elucidated a very frequently occurring cause of the set of symptoms denominated *asthenopia*, and immediately applied the general, vague and comprehensive term to this particular cause. Had he, now, insisted that the preëxisting term should be given to this individual cause, and had he, by the very weight of his authority (which he might have done), made the profession adopt it, he would then have been justified in making a part stand for the whole, and in thus making hypermetropia synonymous with *asthenopia*; and that he really does so consider them would without doubt be inferred from the following observations:—

"I have already asserted that hypermetropia is usually at the bottom of *asthenopia*. The truth of this assertion has been doubted. I now, however, go a step further, and venture to maintain that, in the pure form of *asthenopia*, hypermetropia is scarcely ever wanting." (P. 261.)

"Our knowledge had reached this point when I discovered the cause of *asthenopia* in the hypermetropic structure of the eye." (P. 274.)

"It is a great satisfaction to be able to say that *asthenopia* need now no longer be an inconvenience to any one. . . . The discovery of the simple fact, that *asthenopia* is dependent on the hypermetropic structure of the eye, pointed out the way in which it was to be obviated."

The above statements would seem to imply, with some force, that hypermetropia was either invariably the cause, or so nearly so, that its occurrence from other causes and conditions were not worth mentioning; and it would most assuredly convey such an impression to the reader's mind, did he not happen to remember that the author

had previously stated,* that "the condition for the occurrence of asthenopia may be still more generally formulized; it is the presence of a rather considerable, but at the same time insufficient range of accommodation. Now, in general, this insufficiency is attributable to hypermetropia, as has been fully explained. But it may proceed also from want of energy, and in paresis; insufficiency of the interni recti muscles, and in astigmatism." These four other causes are somewhat contradictory of "the simple fact that asthenopia is dependent on hypermetropia."

On page 274, the author blames Stellwag von Carion for implying that he considered asthenopia to be a lesion of the accommodation, while on page 264 he admits that it may be due to paresis; and again, on page 277, he strengthens this admission by observing, "in the establishment of the rules to which experience led me, I must distinguish between two series of cases—*a*, those which, with normal range of the accommodation, are exclusively dependent on hypermetropia; *b*, those where diminution of the range of accommodation, or want of energy, plays a more or less important part. The cases contained in it are characterized by the fact, that accommodation itself is disturbed, or morbidly diminished." What is the difference between saying, that sometimes the accommodation is "itself disturbed," and implying that asthenopia may be a "lesion of the accommodation"? Is it any worse to make asthenopia almost invariably the result of a lesion of the accommodation, than to make it almost invariably the result of hypermetropia?

On page 289, the author, under a caution against mistaking apparent for true asthenopia, describes, in his masterly way, a case of what, in this country at least, would be called a typical case of asthenopia. But as it is connected with a slight degree of myopia. instead of hypermetropia, it is denominated apparent, instead of true asthenopia. With regard to the treatment in this case, where the myopia equals only 1-36th, $V. = 1$, and A. good, Donders observes that "blue glasses, resting the eyes, stimulating derivatives, are only too often tried in vain"; a remark which is calculated to somewhat subdue the encouraging effect of the previously made assertion that "asthenopia need now no longer be an inconvenience to any one." especially as the author admits that "such cases are not uncommon. They occur mostly with myopia, but they are also met with in other eyes."

This is simply saying that asthenopia need no longer be an inconvenience to any one, provided that it comes from hypermetropia. But provided that it does not proceed from hypermetropia, the inconvenience may be so great as to defy all therapeutic agents; and the statement that asthenopia is almost invariably connected with

* Page 263.

hypermetropia, does not appear compatible with the one that such cases are not uncommon and are to be met with in myopia.

Such reasoning as the above, we maintain, is begging the question, and obscures rather than enlightens the subject.

Invaluable as are the researches of Donders with regard to hypermetropia, they would have been more so had he insisted upon bestowing upon the symptoms, coming from a definite condition, some definite and appropriate name, and not included those cases coming from an anatomical defect with those arising from functional derangement. Had he done so, he would have eliminated at a stroke a frequently occurring and very important factor of asthenopia, and narrowed, to a great extent, the borders of that dread region which before his labors was almost boundless.

But is it true, as Donders affirms, that the great majority of the cases of asthenopia are contained in his first category, viz., "those where the cause is exclusively the hypermetropic condition of the eye"? We think that future experience will prove that this is not the case, and for the following reasons:—

1. Because asthenopic troubles are found most frequently among the upper classes, and it is precisely here that hypermetropia, like all other incomplete development, occurs the *least* frequently.

2. Because asthenopia is oftener met with in myopia than in emmetropic eyes, and myopia is a condition which belongs essentially to the upper classes; and the causes which increase this condition, when once formed, are just those, viz., continued application of the eyes on near objects, which would rationally produce asthenopic symptoms, for an overfatigued eye (even if it be emmetropic) is in fact an asthenopic eye, just as any other overfatigued organ is a weakened organ.

3. For the reason that in slight cases of hypermetropia, where the asthenopic symptoms are entirely disproportionate to the amount of hypermetropia, patients, when supplied with the requisite glasses, often discard them after a time and experience no further trouble. This is especially the case when such hypermetropes are suffering under some temporary trouble which reduces their general health. I have seen many such cases, from two of which the following brief extracts are taken:—

Miss B., æt. 25, in 1860 had sudden and violent pain in both eyes after prolonged application of them on bad print. The seat of this pain was in the *ball* of the eye and not over the forehead. She was kept in a dark room for several weeks. Since that time the patient has had no return of violent pain, but latterly has complained of a dull, aching pain on use, which is now *above* the brow as well as in the eye; letters run together, and the patient has in fact all the symptoms of hypermetropia. There is, moreover, slight hyperæmia of the conjunctiva in both eyes. The movements of the eye are perfectly normal and the interni muscles strong. Hm. = 1-30th. Ht. = 1-24th. V. = 1. A. = 1-5th. Fundus normal. General health much below par, and she is pale and cachectic. Tonic treatment was prescribed, and + 1-30th, with which the patient was told to read three times a day, increasing gradually, in accordance with Dr. Dyer's method. Under

this treatment the patient progressed but slowly for three weeks, at the end of which time she could only read without pain fifteen minutes at a time. Discouraged with her slow progress with the glasses, she wrote two letters without them, and was then attacked by a violent pain in and about the eyes, which lasted for forty-eight hours. She returned to her glasses. Six weeks later, she could only read thirty minutes three times a day. She continued to gain slowly, when she had a violent attack of inflammatory rheumatism, which confined her to the house for more than a month, and she passed out of my care. Four or five months afterwards the patient, whose general health seemed to be nearly restored, visited me again. She informed me that her eyes gave her no further trouble, that she read and wrote as much as she pleased, and that she had not used her glasses since her recovery from illness.

A. C., æt. 15. Hm. = 1-40th. Ht. = 1-24th. V. = 1. A. = 1-4th. Fundus normal. With this patient letters did not become indistinct, but vision could not be maintained for the near, without inconvenience, more than a few minutes. No weakness of the interni could be detected, though the attempt was made several times. The same treatment as in the preceding case was adopted for several weeks, when the patient was allowed to resume his studies, with the injunction never to use his eyes for any close work without his glasses. Six months later I saw the patient, when he assured me that his eyes were *perfectly well*, that he had not used his glasses for the last four months, although he had been in the habit of using his eyes till a late hour of the night in preparing his college exercises.

If this can happen, as it often does, where the total hypermetropia equals 1-20th to 1-24th, how much more frequently would it be likely to occur in the slighter degrees of hypermetropia?

The above examples of frequently occurring cases are not quoted here to prove that hypermetropia had nothing to do with the asthenopic symptoms, but merely to show that it was the secondary and not the immediate cause of the trouble; for if it had been the primary cause the asthenopia would, on the one hand, have disappeared the moment the hypermetropia had been neutralized by the glasses, while, on the other, it would have returned as soon as the glasses had been laid aside. We think, therefore, that practitioners have, heretofore, been too prone in cases where trifling degrees of hypermetropia have been detected (say of 1-40th to 1-70th) to attribute the asthenopia which occurs in such eyes *invariably* to hypermetropia, and that they have been thus led to class these cases under it. Further, we have no right to assume that the slight degrees of hypermetropia brought forth by paralization with atropine are due to a want of length of the antero-posterior axis; because, it is by no means proved that atropine simply paralyzes the asthenopia. We do not know but that in paralyzing one set of fibres it does not cause others to contract, and thus cause the lens to become a trifle flatter than it was before the application. Atropine certainly produces a wider dilatation of the pupil than that which takes place in total paralysis, or even in removal of the oculo-motor nerve. May it not produce the same effect upon the fibres of the ciliary muscle that it does on those of the iris? It causes the emmetropic eye, on the average, to become hypermetropic 1-60th,* and this effect may differ greatly in different individuals, especially in the young. And would it not be far fetched

* Accommodation and Refraction of the Eye, page 600.

to attribute grave asthenopic symptoms, as is often done, to this amount of hypermetropia? The fact that some people, who are slightly hypermetropic, cannot use their eyes without the aid of a weak convex glass, does not prove that their asthenopia was produced by the existing hypermetropia. This we hope to elucidate further.

Finally, as strongly corroborative of the assertion that the majority of asthenopic troubles are not due exclusively to hypermetropia, we would call attention to the statistics published in the "Transactions of the American Ophthalmological Society," 1865, by Dr. Derby, who says:—"I have carefully collated the cases of asthenopia occurring in my own private practice, excluding infirmity patients as offering relatively fewer cases of the affection, and less opportunity for subsequent study. Out of 1800 recorded cases in general ophthalmic practice, I find 369 cases of asthenopia in general. Of these 241 belonged to the first class and 125 to the second, or asthenopia simplex. Nearly all of these latter were dependent upon hypermetropia." It would appear, according to this, that the cases which were dependent upon hypermetropia were less than one to two of those where the asthenopia was due to other causes. This disproportion would be greater still did not the above statistics embrace also those cases dependent on insufficiency of the interni recti; while many cases must have been included also where the hypermetropia was of a very trifling degree. My own cases, though not so numerous, give nearly the same ratio.

It was originally proposed to divide asthenopic troubles into two classes:—

"1st. Where the continued use of the eyes on near objects is physically—

"2d. Where it is optically impossible."

This classification has lately been given up for one instituted by Donders, who, maintaining that the hypermetropia was almost invariably the cause, insisted that this condition should represent the type of the affection.

A speedy return to the former classification (which at least had the merit of covering the whole ground) would certainly appear most advisable.

The practical objection against the present classification is, firstly, that it makes what are in reality the exceptional cases predominate over the typical ones; secondly, that it tends, especially when upheld by such weighty authority, to stop scientific investigation, and makes us content with a part of the truth when by patient research we might obtain the whole.

One of the greatest obstacles to the progress of medicine has always been its imperfect and meaningless nosology, and no branch has certainly suffered more in this respect than ophthalmology. To remedy this will be assuredly a herculean task, but it is high time that it should be begun.

DR. VALERJ'S INTRODUCTORY LECTURE.

(Continued from page 337.)

BUT not only the natural course of diseases teaches us that they are cured by the crises, but also that these crises do not act irregularly or confusedly, nor in a uniform manner in all kinds of maladies. This standard fact of the crises is comprehended within the directing law of all created things, as I have already stated in speaking of the conservative nature of our economy in its healthy state; that is to say, even the crises are accomplished *cum ordine, tempore, et mensura*.

Orderly.—You do not find, for instance, that an indigestion is cured by perspiration, but by vomiting, and conversely a rheumatism is cured by perspiration, not by vomiting; an abundant flow of urine will prove critical for a dropsy, and a dropsy will not be cured by a puriform expectoration, as is the case with bronchitis or pneumonia. An epistaxis will decide favorably the issue of a congestion, an inflammation or a fever, but not of smallpox, for instance, nor scarlatina; this latter is arrested by a desquamation, and the Arabic exanthema by suppuration. And for briefness's sake, I will state, that every morbose process has a particular crisis relative to the nature of its cause, the tissue and organ that it attacks, the course it pursues, the age, constitution and temperament of the individual, epidemic influence, &c. We may lay it down as a general rule, that the crises for hæmorrhage ordinarily appertain to inflammations, those for mucous secretions to phlogosis of the mucous membranes, so widely extended over such a number of apparatus; the crises through the skin to a great variety of pyrexia of a nervous and humoral character; in fine, that the critical fluxes of the glandular system belong rather to malignant and typhus fevers, the plague, &c. &c.

Within due limits.—The reason of this is so clear, so intimately connected with the very nature of the crises, that it requires but a brief explanation. If the critical perturbations were too violent or too gentle, if the salutary evacuations were too abundant or too scarce, in other words, if they were not commensurate with the nature and specialty of the manifold pathologic processes which they are to resolve, they would be no longer beneficial, and so far from effecting a perfect cure, would either prove useless or detrimental to the affected organism. *Nil paucum criticum* essentially comprehends the inverse aphorism of *nil multum criticum*. Thus, for instance, a hæmorrhage, a fit of vomiting, a perspiration, a diarrhœa, if irresistible and ungovernable, so far from being completely favorable to a congestion, a gastric obstruction or a fever, would reduce the patient to a state of deplorable inanition: on the other hand, we do not find that a slight purulent spitting empties a vomica, nor that a few drops of blood are sufficient for a real plethora, nor does a diuresis of a few hours dissolve a general anasarca, and so on with regard to

analogous cases. The crises, then, exercise themselves within sufficiently just limits to operate a perfectly favorable change in diseases, which is the scope of the salutary nature. If at times this does not occur, there are reasons for it, which I shall explain to you hereafter. For the present you will permit me, for the due order of my discourse, to speak only of the healthful and benignant side of nature, or of the operations she performs purely, and without any concurrence of ours, for the welfare of our affected organism.

At proper periods.—Although by the simplest notions of physiology, which plainly teach us that the whole economy, as regards increase or decrease, action or repose, as well of itself as of all its tissues, organs and functions, is influenced by time's silent sway; although by the simplest notions of pathology, which teach us that each peculiar malady takes its proper course almost invariably, physicians should, even previous to their individual experience, have unanimously foreknown and concluded that even crises are regulated by time, that is to say, by a law which appoints the periods of their first appearance and of their maturity; notwithstanding all this there has been no truth in medicine so much discussed, contested, and, I would also say, wrongly interpreted, as that of critical days. Sydenham, who next to Hippocrates may be justly considered as the most experienced observer of diseases, surprised at the *regularity* of of their *periods*, the peculiar order and method with which they occur, and considering the phenomenon neither more nor less surprising and mysterious than so many other realities which occur in creation at appointed periods, rather than confute the objections brought forward by the opponents of this doctrine, meets them with the following query:—"Tell me, explain me, I pray you, if you make so great account of yourselves, why the horse attains to its perfect growth at the age of seven, man at the age of twenty-one; why this plant is wont to flower in May, that in June, another in a different month; and so on with so many like phenomena of the Creation?"

Libenter enim a vobis questierim cur æquus ad acmen suum pertingat VII. annorum spatio, homo XXI., cur in plantarum regno hæc mente Majo, illu Junis, ista alia florere soleat, ut innumera ali nunc sileam?

As for us, we shall deport ourselves in a like manner, preferring, like Sydenham, not to discuss the arguments brought forward against the existence of critical days; but simply noting the fact, we declare that, despite the opposition from so many quarters, the doctrine of the critical days has never fallen to nought, but still lives and prospers. Philosophers and physicians, even the very vulgar, and patients themselves, all respect it. "*Savans et peuple, medecins et malades tous admittent la doctrine des jours critiques dans les malades.*"—Ballonius, Epid., lib. 1st. In fact, observation, the most faithful guide to our attainments, teaches us that as diseases have their regular periods of increase, acme and diminution, so their great and manifest changes, favorable or unfavorable (*ad salutem aut mortem, ad melius aut ad pejus*

inclinationes), mostly take place on certain stated days, called therefore *decretory*, while on certain others they are pre-announced, and these days are hence called *indicatory*; and on certain others they occur but rarely, or in an irregular, imperfect, and often fatal manner, and these last are called *intercalary* days. I shall not here stop to specify the cyphers which represent these different days; you have certainly engraven them in your memories. However, there is one thing which I deem it not superfluous, but even useful to be remembered, and it is that Hippocrates was the first who established and noted their importance. Nor in doing this was his mind pre-occupied by any pre-conceived numerical law; but endowed with a sublime genius, which no law affecting the patient could escape, by merely observing with clear introspection the natural progress of the morbose processes, he distinctly perceived that their issue in recovery or death, and the critical phenomena which influenced them beneficially or otherwise, for the most part occurred on stated days, which, however, he does not lay down as unexceptional, but the most often-recurring, not as regards the universality of diseases, but the greatest number of them, not as absolute, but dependent upon a multitude of circumstances; as, for instance, the diversity of age and strength of the patient, their surroundings, difference of seasons and climate, epidemic influences, &c. It suffices to read the golden work by *Testa*, a celebrated physician of Ferrara, "*De vitalibus periodis aegrotantium et sanorum*," and Anthony de Staen, in his "*Ratio Medendi*" (wherein, with unmatched crudition, he analyses the course, crises, and critical days of more than two hundred cases of maladies and epidemics recorded in the works of Hippocrates), to be convinced that this truth rests on unshakable evidence, connected with which it will be of some service to repeat the fact, that the father of medicine, in enumerating the critical days, had no other guide than mere observation. The result, then, is that physicians of every age and country, independent of every system, and true to the maxim of observing and never tampering with the operations of nature, whenever she was self-sufficient to cure diseases, unanimously noticed not only the crises, but the regularity of the critical days. *Foresto*, for instance, gives the history of forty-eight cases of intense malignant fever, thirty-eight of which terminated on the critical days, declaring with rare minuteness, that among these patients five were favorably determined on the fourth day, twenty-two on the seventh, seven on the fourteenth, two on the eleventh, one on the seventeenth, and another on the 21st. Now, if out of forty-eight patients three fourths were determined favorably on the critical days, these days must be distinguished from the others; and if out of these critical days twenty-two were favorably decided on the seventh, and seven on the fourteenth, out of the sum total of thirty-eight cases, there is no doubt that these numbers seven and fourteen are to be preferred to the others. Jandic Bauvais, in his "*Simeiotique*," states as follows:—

"I can positively assert that, during my twenty years' experience, I have always observed the crises occur at the periods noticed by Hippocrates, in all cases wherein no disturbing medicine interfered with the regular course of the disease; and my pupils at the *Salpêtrière* have frequently seen the crises occur on the critical days even among the aged." Andral himself, in his medical clinique on acute diseases of the chest, has observed that out of ninety-three cases of recovery, three fourths of them coincided with the critical days.

But the critical evacuations on critical days are not the sole means by which nature healeth: another mode of recovery, equally efficacious, and confirmed by daily experience, is *metastasis*, that is the changing of the seat and form of the disease, by means of which the grave symptoms of an affection, in most cases internal and dangerous, are arrested, giving place to the manifestation of another affection of much less importance, and often curable. This fact, notwithstanding the different interpretations which it has received, in conformity with the various systems which have prevailed in medicine, is incontestable, and a few examples will suffice to convince you of its truth.

Suppose that a certain person has suffered for many years, from a persistent dyspepsia, or if you will, from vertigo, or neuralgia in any region whatsoever, or from a violent intestinal colic; and suppose that (no matter which of these morbose forms) it attacks him with recurring paroxysms several times a year, and at each time with redoubled intensity. All on a sudden he is fortunately attacked by a fit of gout, and from that instant the vertigo, the dyspepsia, the colic, or any other serious malady whatsoever that a shifting and visceral gout can engender, ceases, never more to return. A girl is affected from hemoptysis, which after recurring several times, is finally accompanied by slow fever with cough, pain in the chest, puriform sputum, and a certain degree of general consumption. The case is adjudged to be most serious; but while the members of the family almost despair of her recovery, there appears on the skin of the patient a herpes inherited from her parents; the pulmonary syndromes are checked, get better, and finally cease completely, and the poor girl recovers henceforth her strength and health. A man of bilious temperament, but of a robust constitution, in a few years becomes quite indisposed, at first by a fierce hepatitis, then by jaundice of long duration, and ultimately by repeated attacks of cerebral congestion. On a fine morning he ejects with his excrements a copious quantity of black venous blood, preceded for several days by more or less tenesmus, costiveness, and a sense of burning along the rectum: from that moment sets in a hemorrhoidal and periodical flux, from which a long series of years of perfect health compensates him for his by-gone dangers and sufferings. I should draw out this most important subject to a great length if I had to enumerate to you the many like instances, which are daily beheld in medical practice;

the above cases, cited as an abstract, are the most common, and tested by my personal experience. It is not unfrequent, for example, to see a pleurisy, or pneumonitis, or a meningitis suddenly resolve itself by the appearance of an erysipelas; a persistent convulsive cough arrested by means of an eczema, a *fluxus post aures*, or by an acne appearing on the skin of children; an urticaria cure a cardialgia, which for so many years baffled a number of remedies; the appearance of a foetid perspiration on the feet cure a persistent laryngeal cough in a boy threatened with pulmonary tubercles, and from being thin, and delicate, render him in a short time florid and robust. I myself have seen a spontaneous eruption of boils heal a melœna, which threatened speedily to carry off a noble personage; and not long since I have witnessed a hemorrhoidal affection which permanently arrested a copious hematuria recurring at very brief intervals. In perusing the clinical histories by authors of sound practice, you will find an ample collection of such like recoveries from maladies reputed even incurable, and ultimately brought to a favorable issue by nature in this manner, namely, converting them into diseases of much less importance and danger, by transferring at once the morbose matter or process lodged in a viscus to an external, or less important part of the body. I cannot, in the meantime, too strongly impress upon you not to forget this salutary procedure—or the practical importance derived from it in effecting the diagnosis, prognosis and cure of many diseases we shall treat at the sick bed; suffice it for the present for you to know that so great is the benefit which nature designs to bestow on the patient by this means, that when, like the exclusive anatomo-pathologists you would suppress or unopportunately cure these metastatic manifestations, you inflict the forfeit of death on your poor patients.

But nature, as if not content with curing diseases by means of the crises and metastasis, is wont, moreover, to excite, by a mysterious influence in the affected organism, certain appetites, and sensations, in being blindly obedient to which, the individual, by satisfying them, finds the only hope of his recovery. I have already addressed you on the subject of these internal spontaneous motions and stimulants, otherwise termed instinctive desires, and stated to you that they not only contribute towards the maintenance of health, but moreover, in several cases towards the cure of maladies. Let us take, for example, a person affected with dropsy, whom the copious variety of diuretic medicines has failed to cure: reduced to the last extremity, he feels a rabid yearning for a certain quality of wine; it is given to him, perhaps against the physician's will; he drinks it, and is cured through the intermediation of a critical diuresis. A person threatened with consumption, whose diarrhœa is increased even by the most selected aliments, feels an unwonted craving for oysters, and by partaking of them the gastric flux becomes moderated, ceases, and he happily recovers his health. A patient affected with a severe dysen-

tery recovers by eating to satiety and with voracity certain pickled meats. Some aged person, ill treated, with a quartan ague, is cured by plunging into a cold bath, to which he felt himself impelled in the height of his feverish paroxysm. How many chlorotic females, whom tonics and ferruginous remedies have failed to invigorate, by merely satisfying their extravagant appetites for hard food and indigestible substances have restored the crisis of their impoverished blood, and thus re-acquired the regularity of their catamenia, to the astonishment of themselves and their physicians! Nor shall I dwell further on these facts, so strikingly curious, interesting and mysterious, for the history of medicine supplies us with them most abundantly; and you yourselves, at your leisure, may make an ample collection of them.

We have, then, heretofore seen that nature cureth diseases, and passed in review the means and order which she adopts for this purpose. I would not, however, that any of you should deem yourselves adequate to solve, by these sole elements, the question expounded in the opening of our discourse, and which I characterized as not being very easily judged with impartiality and soundness of discernment. In fact, if astonished at the extraordinary power which nature displays in the cure of diseases, you decide the cause by a *simple* and *hasty* sentence in her favor, and against the physician, you would expose yourself to two strong objections, which would not fail to present themselves to you, and would certainly prove very embarrassing. And these objections are, *firstly*, that nature by curing and operating so marvellously, seems to act with discernment and intelligence. *Secondly*, that for this reason she may be sufficient of herself alone to cure diseases, and, therefore, the *ars medica* and the physician are superfluous, if not hurtful.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE NORFOLK DISTRICT MEDICAL SOCIETY OF MASSACHUSETTS. BY Z. B. ADAMS, M.D., OF ROXBURY, ASSIST. SECRETARY.

A STATED quarterly meeting of the Norfolk District Medical Society was held at Dedham, Nov. 14th, 1866, at 11, A.M. The President, Dr. Cotting, in the chair. The records of the last meeting were read by the Secretary, Dr. Jarvis, and accepted.

Dr. P. O. M. Edson, of Roxbury, having been examined by the Censors, was admitted a member of the Society.

The President said that he was happy to inform the Society that twelve or thirteen gentlemen were ready to read papers.

Voted, on motion of Dr. Faulkner, of Jamaica Plain, that the discussion assigned for this meeting precede the reading of the papers.

Voted, on motion of Dr. Jarvis, of Dorchester, that a committee be

appointed by the Chair to select a subject for discussion at the next meeting.

Drs. Howe of South Weymouth, Miller of Dorchester, and Monroe of Medway, were appointed. They subsequently reported as follows : "Are the constitutions of our women degenerating? If so, what is the cause?"

The President announced the subject for present discussion to be—"The Effect of the Present Method of Common School Education on the Mental and Physical Development of the Child."

Dr. Green, of Milton (one of the appointed disputants), opened the discussion. He said that there were one or two points, which were defects, to which he would call attention. He spoke of pushing scholars up from the lower to the higher grades too rapidly. He thought committees were responsible. The high school course should be looked upon as supplementary. A strict written examination being now required for entrance to the high school, the grammar school teaching was but a system of cramming for this. Committees pay too little attention to the lower grades, and all new or inexperienced teachers were put in charge of the primary schools. He suggested that some other system of examination for entrance to the high school than this written examination should be had.

Dr. Seaverns, of Roxbury, remarked that he thought that the members of the Society ought to use their personal influence to remedy the defects pointed out; but he also thought that ventilation and other defects spoken of by Dr. Salisbury, in his address last May, had not yet been remedied. School-rooms were too warm, close, and ill ventilated. He referred to the schools that he had visited. Also the studying of lessons out of school should be abolished.

Dr. Fifield, of Harrison Square, objected to the mode of seating the children at school on chairs all alike, fastened at the same distance from the desk, compelling the children to sit immovable. He also objected to forcing all children along in the same stereotyped course of studies.

Dr. Faulkner, of Jamaica Plain, said he had no practical knowledge of the subject, but sympathized with the opinion of one of our seniors, who had expressed grave doubts as to whether the method adopted when he was a boy, when no attention was paid to the subject, was not better than now, with all the improvements.

Dr. Howe, of South Weymouth, said he thought school sessions were too long, and children were sent too early. He thought study should be required only a portion of the year.

Dr. Munroe, of Medway, said he thought there was a neglect of the physical powers, while the mental powers were strained to the utmost. We did not begin early enough. The child should be educated from the cradle; the systematic performance of duty should be the aim. The necessity of labor, or work, should be taught from the earliest infancy. He believed that the morning session might be devoted to some useful labor, and that the afternoon would be enough to acquire all that is now done.

The Secretary, Dr. Jarvis, of Dorchester, said the question was, How shall these children get the greatest amount of power for work? not how shall they learn Latin, &c., but whether, while learning such things, they got the greatest power. As a general rule, our child-

ren go out as well prepared mentally and physically as could be expected. Ventilation is much better now than it used to be. He thought well of the half-hour system, alternating study and work, which had been introduced in England. He also spoke of the necessity of properly adjusting the bodies of the children in school.

Dr. Noyes, of Needham, was glad to have the profession here express their opinion upon this subject publicly and with authority. The brain was too much taxed, the body too little. The gymnastic system did not answer the purpose; exercise should be such as to develop the whole body. By the present system the brain was too much exercised, the muscles not enough. The system should be to encourage and foster, and draw out the talents of each individual.

Dr. Mann, of Roxbury, said he objected to withdrawing children from the public schools and sending them to private schools. We should try to remedy the defects of public schools, and it is a duty we owe to the community to make the effort.

The President, Dr. Cotting, summed up the discussion. There were evils, certainly, still needing remedy. The necessity of utilizing the knowledge imparted at school was too much overlooked. Children are drawn, or forced, through forms and systems, literally "crammed," without being sufficiently taught how to use what they learn in further acquisitions and in the ordinary occupations of life. There is a general impression, not wholly without foundation, that our schools do not answer their purpose as fully as they should. There was too much "education" and too little real available learning.

Dr. Stone, senior, of Walpole, moved that papers be now read. Agreed to.

Dr. Adams read a review of Vol. II. of Niemeyer's work, "Éléments de Pathologie Interne et de Thérapeutique." On file for publication.

Dr. Arnold, of Roxbury, read a paper on the Employment of Hydrostatic Pressure in Nebulizing Fluids for Local Anæsthesia, showing an apparatus devised by himself. On file for publication.

The President said that Dr. Arnold had used the apparatus for him most satisfactorily. Not long since, Dr. Arnold thus assisted him in some cases of "ingrowing toe-nail," a disease which he alluded to at this time because Annandale, in his recent large work on the Surgical Treatment of the Toes,* re-printed the present year in this country, says, page 105, that evulsion of the nail, "the plan proposed by Dupuytren, is certainly the best." He, the President, had never found it necessary to remove any of the nail; on the contrary, in one of the cases in which he had had the assistance of Dr. Arnold, the nail had been removed some years before without any good effect. Indeed, the failure of removal of the nail induced him originally to adopt the present plan. His method, as formerly described to the Society (*Boston Medical and Surgical Journal*, vol. lxxiv., p. 340), is to remove a portion of the sound as well as diseased flesh from the side of the toe, say three quarters of an inch long, half an inch wide, and as thick as the member will admit of. Two cases, so operated on since the last meeting, succeeded perfectly.

* Malformations, Diseases and Injuries of the Fingers and Toes, and their Surgical Treatment. By Thomas Annandale, F.R.C.S., Edin. 8vo. Philadelphia. 1866.

Dr. Stedman, of Dorchester, stated that had recently performed the operation as above described, with complete success.

Dr. Miller, of Dorchester, read a paper on a new principle of treatment in uterine surgery—intra-uterine scarification. This paper was eminently practical and instructive, and many asked for its publication. On file for that purpose.

Dr. Faulkner inquired if the operation prevented conception and healthy parturition.

Dr. Miller replied that, on the contrary, it was extremely useful as a remedy for sterility, and to prevent the discharge of the fœtus before full term.

He also showed a specimen of amputation, performed on his way to the meeting, of the neck of the uterus, which protruded through the external organs. Case of fibrous degeneration. Removed by the ecraseur. The portion removed was about two inches long.

Dr. Campbell, of Roxbury, read a paper (see last number of this JOURNAL, p. 346) describing splints made of pasteboard strengthened by hoop-iron, very cheap, light, strong, and easily made on the spot, and related a case of fracture of both bones of the leg of an epileptic subject, treated by this splint with excellent success.

The President said, that in suggesting this splint to Dr. Campbell, he claimed nothing original, but that Dr. Allen, of Roxbury, had, years ago, made a similar splint for him.

Dr. Cotting also stated that he had now a patient with fractured patella, to whom he had applied a splint made as above described, with modifications suited to the case. The cost of this, besides what the house supplied, was fifteen cents, and the same would probably cost half as many dollars if made in the ordinary way at the manufacturer's. He also said that the actual value of splints in the successful treatment of fractures had probably been over-estimated both by the public and the profession—that shortening and deformity were less controlled by them than generally supposed: hence often much unnecessary suffering inflicted upon patients, and much unfounded dissatisfaction in the patients and friends at the result. He suggested that the true value of splints in the treatment of fractures would be a good subject for discussion in the Society, or for a paper.

Dr. Noyes related a case of fracture of the arm, treated by a sole-leather splint, made on the spot.

Dr. Edson spoke of Smith's anterior splint, particularly useful in compound fracture of the thigh from gun-shot.

Dr. Stone, junior, of Walpole, related a case of compound fracture of the left femur and right foot by railroad accident; and showed the patient. Treated by extension, and without splints. The result was satisfactory. Notes on file.

Dr. Faulkner read a report of a case, merely, he said, with the design of asking what ailed the patient. The case was marked by diarrhœa, thin and watery, without pain, lasting for several days, as often as once an hour. Pulse 88. Skin healthy. Thirst urgent. Vomiting came on, and stools continued, accompanied by anguish and great depression or sinking: in paroxysms of which he wanted to have his arms pulled. Face became cold. Cried for ice. Wanted doors and windows opened. Vomiting ceased after about twenty times in all. Surface not hot or feverish. Vomiting and diarrhœa stopped thirty-six

to forty-eight hours before death. Mind unaffected. *Post-mortem* appearances.—Great cadaveric rigidity. Body warmer than before death. Stomach healthy. Heart filled with black blood. Very little blood in the tissues. Intestines were denuded of epithelium, and full of thin yellowish serum.

Several members expressed belief that the case was one of cholera. At this point, as bearing upon the case, Dr. Cotting read a paper on Cholera in Roxbury and Vicinity, during the past season. There had been about twenty deaths, and an equal or greater number of recoveries.

Dr. Fifield read a paper—A Critical Review of the Surgery in Rankin's Abstract and Braithwaite's Retrospect—a learned paper, ending with an amusing classical comparison between the two compilations.

Dr. Stone, senior, moved that, on account of the lateness of the hour, the other papers be deferred to the next meeting.

At quarter to 4 o'clock, P.M., after one of the fullest and most animated sessions it ever held, the Society adjourned.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 29, 1866.

VIVISECTION.

THE practice of vivisection, of conducting physiological experiments on living animals, of laying bare the organs within the body and demonstrating to the eye the vital processes and changes which otherwise must be left very much to conjecture and theory, is one which, considered purely in itself, naturally excites the strongest repugnance in every mind which lays the slightest claim to humanity. The sight of the suffering thus inflicted on the lower animals cannot but cause a shudder, and it requires a conscientious purpose on the part of the operator and an intelligent conviction on the part of the spectator that an investigation is being made the object of which is the physical welfare of a higher race, to justify it or to make it even tolerable. Doubtless there has been, in times past, too much reckless experimentation of this kind, too frequent repetition of the same experiment, too great readiness for mere purposes of display to exhibit what has already been sufficiently demonstrated, and too little consideration for the suffering thus unnecessarily produced. As we have said, it requires a full appreciation of the importance of the object sought for to make such investigations tolerable. It is not, therefore, a difficult thing to so describe them, particularly to persons not professionally interested, as to make them to their minds the very consummation of everything barbarous and cruel. This view may, nevertheless, be as unwise and unjust as the criminations of those who stigmatize the operations of the noble science of surgery as nothing better than butchery.

Influenced by such feelings, it is not surprising that movements should have been made at different times on the part of benevolent

persons to check an undue tendency to the repetition of such experiments, or even to prevent them altogether by legal enactment. In this country, until quite recently, very little of this method of pursuing physiological study has been done. Professor Dalton, of the College of Physicians and Surgeons in New York, has probably made more researches in this way than any other American physiologist. The value of the results which he has obtained has been universally acknowledged by the medical profession; and as it is every day becoming more and more evident that the true practice of medicine must be based on the most accurate physiological knowledge, the value of the information gained in this way is becoming more and more demonstrated. Prof. Dalton's vivisections, however, have attracted the attention of the New York Society for the Prevention of Cruelty to Animals, and its President, Mr. Henry Bergh, has felt it his duty to address a letter of inquiry on the subject to Dr. Delafield, President of the College of Physicians and Surgeons, suggesting that if vivisections could not be altogether dispensed with, they might at least be deprived of their suffering by the use of anæsthetics. Dr. Delafield referred this letter to Dr. Dalton, who replied that he was in the habit of using anæsthetics in all instances in which it was possible without defeating the object of the experiment; adding that cases of the latter class were extremely rare. This statement was not specific enough to satisfy Mr. Bergh, who wrote another letter, asking information concerning the exceptional cases; which Dr. Dalton explained by stating that they were cases where the object was "to ascertain the presence or absence of sensibility in particular parts."

It seems that these statements were still unsatisfactory, and Mr. Bergh accordingly addressed a long letter to Dr. Delafield, setting forth in the strongest terms his abhorrence of all such practices, giving a detailed description of some of Magendie's experiments, presenting the opinions of prominent members of the medical profession in Europe against them, and concluding with a protest, "in the name of Heaven, public morality and of this Society against these fearful cruelties, inflicted on dumb, unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." The letter is published in full in the *New York Evening Post* of the 7th inst.

Making all due allowance for the humane feeling which has actuated Mr. Bergh, we feel that in this matter he has gone too far. It is impossible for an unprofessional mind fully to appreciate the considerations which justify to a physiologist what considered by itself merely is but a painful spectacle of suffering. We feel that he should have trusted to the humanity of Dr. Dalton to pursue his researches in the true spirit of scientific inquiry, the sole object of which is the ultimate diminution of human suffering. Least of all was he justified, in our opinion, in printing his letter in the daily press, to excite the universal horror and indignation of sensitive minds. As well might he have opened the doors of a dissecting room to the public for the purpose of producing a prejudice against the indispensable study of practical anatomy. Dr. Dalton replied to Mr. Bergh's letter as follows, and we leave his justification in his own hands; we find it in the *New York Evening Post* of the 8th inst.

COLLEGE OF PHYSICIANS AND SURGEONS, }
New York, November 8, 1866. }

Edward Delafield, M.D., President of the College of Physicians and Surgeons.

DEAR SIR,—I have received your letter of this date, enclosing a third communication from Mr. Henry Bergh, President of the Society for the Prevention of Cruelty to Animals, dated November 1, in which he enters at length into the question of the propriety of vivisections, and in which he protests, "in the name of Heaven, public morality, and of this Society, against these fearful cruelties, inflicted on dumb, unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." His letter, I see, is also published in the *New York Evening Post* of yesterday.

Without replying to the extravagant epithets contained in Mr. Bergh's letter, which are of no consequence in themselves, and which will have no weight with those who desire to be correctly informed as to the facts in the case, I desire to mention to you a few considerations which show that the practice of experimenting upon animals for physiological and medical purposes, which is held up to so much animadversion, is an eminently proper one; and, so far from deserving reprobation, is entitled to respect as a valuable and legitimate means of benefiting mankind.

First of all, its sole and ultimate object is the relief of human suffering and the cure of human diseases. It is the best and most valuable means by which our knowledge of physiology is increased; and upon physiology the cultivation and improvement of the whole medical art depend. All intimations that it has any other motive than this—such as display, wantonness, or the indulgence of a reckless cruelty, are false, and do not represent its true character. The knowledge which is obtained by it enables us to understand the natural functions, without which the study of medicine in all its branches would be retarded, and indirectly but certainly the success of medical practice diminished. In point of fact, notwithstanding all unfounded assertions to the contrary, the greatest discoveries in physiology have, in past times, been directly due to its employment; and while we owe to it a large proportion of the useful knowledge which we now possess, it would be the greatest misfortune for medicine and the welfare of mankind, if it were abandoned or neglected in the future.

Secondly. It is not a cruel practice, but may be and is, in the great majority of instances, conducted in a perfectly humane and unobjectionable manner. It can never be the object of the physiologist to inflict unnecessary suffering; but on the contrary, it is desirable both for the sake of humanity and for the attainment of his object to avoid doing so. This is greatly facilitated by the use of anæsthetics. Since the anæsthetic properties of ether and chloroform have been known to us, their employment has been fully as useful to the physiologist as to the surgeon, and they enable us to do the requisite preliminary operations without the animal experiencing any sense of suffering, and even without his consciousness.

As you are aware, it has been my constant practice to employ ether for this purpose, in the College of Physicians and Surgeons, whenever the operation to be performed was calculated to inflict pain upon the animal. This can always be done, except in a very small class of cases, where the aim of the experiment, being to ascertain the existence of sensibility in a particular part, the unconsciousness produced by ether would defeat the object of the operation.

This is especially true in certain experiments of Magendie, performed in 1822, on the roots of the spinal nerves, to which I referred in a former letter, and by which the seat of sensibility in these parts was ascertained. But these experiments are so rare that I have not only never had occasion to do them myself, but do not recollect ever to have seen them performed. Yet I know that they have been done in former times, and have been productive of the most valuable and lasting results; and when requisite for other objects similar experiments might again become necessary and proper, and even here the amount of suffering inflicted is very much less than it is often represented to be. It can only be necessary to obtain an indication of sensibility, and the object of the experiment is accomplished. The practice of performing surgical operations on living animals by students or practitioners as a means of acquiring dexterity, so far as I am aware, is unknown in this country.

I allude to these considerations because I think they are important to the cause of medical education, in which we, as well as the whole community, are interested. In the College of Physicians and Surgeons over which you preside, it has always been believed that the fullest instruction in physiology, as well as in the other elementary branches, is essential to the due preparation of intelligent and successful physicians. The more complete and efficient this instruction is made, the more competent will be the practitioners who every year are sent out to join the ranks of the medical profession. This instruction is made as complete as possible by ocular demonstrations of many important facts, but this is always done, as I believe, in a reasonable and proper way. It is not the case that "revolting barbarities are repeated at lectures for the mere gratification of juvenile curiosity." It is unnecessary to say to those who are familiar with these lectures that no such barbarities are to be seen there; but it may be desirable for the information of those who are unacquainted with the subject, and might otherwise acquire an unfounded prejudice against it. I cannot, therefore, pass over without reply the communication of Mr. Bergh, which is calculated to place in so false a light one of our most valuable means of improvement in medicine.

Yours, very respectfully,

J. C. DALTON, M.D., *Prof. of Physiology.*

The Revue des Cours Scientifiques de la France et de l'Etranger of the 24th of September, published in Paris, contains, as its first article, a translation of Dr. Cotting's Address before the Massachusetts Medical Society, on Disease as a part of the Plan of Creation, by Gaston Garnier.

Dr. A. M. SHEW, lately an assistant physician in the State Lunatic Asylum at Trenton, N. J., has been unanimously elected by the Commissioners of the new Hospital for the Insane in Connecticut Superintendent of that institution.

There are over five hundred matriculants in the Medical Department of the University of Michigan.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 24th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	49	44	93
Ave. mortality of corresponding weeks for ten years, 1855—1865	40.8	36.9	77.7
Average corrected to increased population	00	00	84.26
Death of persons above 90	0	1	1

BOOKS RECEIVED.—Clinical Observations on Functional Nervous Disorders. By C. Handfield Jones, M.B., &c. &c., Physician to St. Mary's Hospital. Philadelphia: Henry C. Lea. 1867.—Surgical Clinic of La Charité. Lessons upon the Diagnosis and Treatment of Surgical Diseases, delivered in the month of August, 1865, by Prof. Velpeau, Membre de l'Institut et de l'Académie Impériale de Médecine. Translated by W. C. B. Fildes, M.D. Boston: James Campbell. 1866.—A Treatise on the Principles and Practice of Medicine, Pathology, &c. By W. Paine, M.D. Philadelphia: University Publishing Society. 1866.

DEATHS IN BOSTON for the week ending Saturday noon, Nov. 24th, 93. Males, 49—Females, 44. Apoplexy, 2—congestion of the brain, 1—disease of the brain, 5—bronchitis, 3—burns, 1—cancer, 1—cholera, 1—consumption, 16—convulsions, 1—croup, 2—debility, 1—diarrhea, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 3—dysentery, 2—erysipelas, 2—typhoid fever, 1—typhus fever, 1—gastritis, 2—hemorrhage, 1—malformation of the heart, 1—infantile disease, 4—congestion of the lungs, 2—inflammation of the lungs, 5—necrosis, 1—old age, 4—paralysis, 4—peritonitis, 2—premature birth, 3—scrofula, 1—smallpox, 3—suicide, 1—tonsillitis, 1—thrush, 1—unknown, 8—whooping cough, 1.

Under 5 years of age, 34—between 5 and 20 years, 7—between 20 and 40 years, 15—between 40 and 60 years, 23—above 60 years, 14. Born in the United States, 66—Ireland, 23—other places, 1.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV.

THURSDAY, DECEMBER 6, 1866.

No. 19.

ON THE PRACTICAL USES OF THE LARYNGOSCOPE AND RHINOSCOPE IN DIAGNOSIS.

By EPHRAIM CUTTER, M.D., BOSTON.

[Read before the Maine State Medical Society at Portland, June, 1866, and communicated for the Boston Medical and Surgical Journal.—Continued from vol. lxxiv., page 201.]

RHINOSCOPY.—*Terminology.*—As its origin implies, the word signifies a viewing of the nose. It embraces outside and inside inspection. In the outside observation is included the general appearance, the outlines, the prominences, flatness, thickness, angles, symmetry, length, and the condition of the integuments of the nose; the size, shape, dimensions and plane of the nostrils. This form of rhinoscopy is general among mankind, as none of the features of the human countenance is more marked, noticeable and noticed than the organ in question. The inside observation is naturally divided into two departments—(1) the observation of the cavities of the nose through the nostrils, and (2) through the posterior nares. The divisions may be termed anterior inspection and posterior inspection.

Anterior inspection is easily performed and important. It is practised on the patient by bringing the face directly into a strong illumination—either of direct or reflected sunlight, diffused daylight, or direct and reflected artificial light. The examination may be conducted either in the sitting or standing posture. The subject's head should be thrown backward and the light allowed to enter. In case of a partial stenosis, the nostrils may be dilated with spring wire forceps, blunt probes, straight or crooked, or with a dilator having three prongs. Physical lesions may thus be detected which are unsuspected and surprising. For instance—

CASE XVI.—A boy, 12 years of age, of cachectic habit, during convalescence from a month's sickness of what appeared at the time to be an acute rheumatic inflammation involving the left hip-joint (but which was afterwards proved an exostosis of the femur, not involving the head), was observed to be continually picking his nose with his fingers, frequently with the result of besmearing the nostrils, upper lip and fingers with blood. Anterior rhinoscopic examination revealed a complete circular perforation of the cartilage of the vomer about five eighths of an inch in diameter. The light sent into one nostril

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illuminated the other through the abnormal foramen. The ulcerated surface of the vomer presented a re-entering angle, and was granulated and bloody.

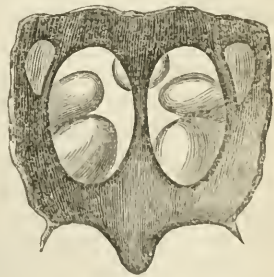
Posterior inspection of the nose is what is now considered the especial province of rhinoscopy. It signifies the viewing of the parts contained in the anatomical wedge-shaped space situated back of the mouth, and bounded as follows: the base is an imaginary curved plane, with convexity upwards, reaching from the free surface of the soft palate, when hanging in passivity, to the post-pharyngeal wall. Backwards the space is bounded by the perpendicular posterior wall of the pharynx, which extends upwards to the basilar process of the occipital bone, and meets at a sort of gothic angle the anterior boundary plane, which reaches downwards and forwards to the free edge of the soft palate. This anterior boundary is not a straight plane like the posterior boundary, but elliptically concave—the concavity presenting backwards. The anterior boundary is perforated by four foramina—namely, the two openings of the posterior nares and the internal orifices of the two Eustachian tubes. The lateral walls of this space are triangular, convex outwards, and accurately coalescing with the anterior and posterior boundary. They are covered with mucous membrane and supplied with the usual muciparous glands, and in other respects they are like the posterior boundary. It is the peculiar province of rhinoscopy by special contrivances to demonstrate the above-described space to the eye of an observer. It is proposed here to give a physiological diagnosis of these parts, based solely upon auto-rhinoscopic examinations which have been repeatedly conducted during the space of several years. What is said is true only of my own person, and is derived from actual inspection by myself. The measurements have been taken by the eye, which has immediately before admeasurement contemplated the graduated tape-line. They have been confirmed by observations made with a graduated mirror. The description of this part of my body must not be taken as the exact description of the same part in others, any more than an exact description of one man's face would accurately tally with that of others. Still, as human faces have a correspondence in their general features, so it may be expected that the interior nares may share in similarity. Experience shows this to be true in general.

The parts described are:—

1. The posterior boundary.
2. The anterior boundary, including
 - (a.) The dome and Rosenmüller's fossæ.
 - (b.) The two posterior nares.
 - (c.) The turbinated bones.
 - (d.) The vomer.
 - (e.) The two orifices of the Eustachian tube.
 - (f.) The posterior surface of the uvula and soft palate.

1. The posterior boundary is simply an upward continuation of the post-pharyngeal wall. It appears as a plane surface, composed of the bodies of the vertebræ, covered with investments of fascia and mucous membrane, of the same physical characters with that portion which covers the wall which is in sight at the back part of the mouth. Judged of by the eye, in my own throat it is about two and a half to three inches in its greatest length, and two inches in its greatest breadth. It is amply provided with muciparous follicles. In a state of health, the mucous membrane is smooth and of a pale red. It is very liable to disease, such as denudation of the mucous membrane, ulceration, herpes, secretion of masses of mucus, varying from a thick, tough, inspissated character to that of a thin, glairy description, which often causes a very troublesome sensation, described by patients as a "dropping from the nose," and deemed a "catarrh," while in fact it has nothing to do with that disease, being entirely independent of the nares, and amenable to treatment which has nothing to do with the nostrils. There is a want of symmetry in my case, the one on the right being larger than that on the left. The posterior boundary bends a little forward at its upper part to unite with (2) the anterior boundary to form (*a*) the dome. This dome lies underneath the basilar process of the occipital bone. It is not a segment of a sphere or ellipse, but rather a very acute, irregular gothic arch. In health it is covered with ordinary looking mucous membrane, supplied with follicular glands. The extreme corners of the dome are termed Rosenmuller's fossæ. The dome and Rosenmuller's fossæ are sometimes the seat of abnormal excretions. The anterior boundary descends about five eighths of an inch, when it is perforated by what are the chief objects of interest in this region, namely, (*b*) the two posterior openings of the nares. These are two elliptical foramina, with the major axis vertical, of the following dimensions in my own case: major axis, three fourths of an inch; minor axis, one fourth of an inch.

The accompanying cut is a tolerably accurate diagram of the anterior boundary as it appears in the rhinoscope in my own case. It shows the posterior surface of the uvula, the vomer, the Eustachian orifices, the posterior nares, the turbinated bones, only in the impression the parts are reversed from left to right.



They are separated by the vomer, which will hereafter be described. These openings present directly backwards, and contain three bodies, which are, being properly visible, posterior terminations of (*c*) the superior, middle and inferior turbinated bones. These appear like irregularly spherical, club-shaped or fist-like bodies, attached to the parietes of the nares as follows. The superior,

as is the case in the dried anatomical skull, is rather vague and indefinite. It is the smallest. It presents the appearance of an obscure hemispherical swelling, situated at the upper and inner part of the nasal opening, and seems as if attached to the vomer. The two are not symmetrical in size, the one on the left being larger than that upon the right. Oftentimes they are absent. The *middle turbinated* bone is next larger in size. It appears as if attached to the middle of the outer wall of each opening of the nares. It is something more than hemispherical—perhaps three quarters of a sphere. It projects directly inwards, approximating its fellow and the vomer. There is more space above than below it. This bone is usually present. It often varies its shape from that indicated to a long, thin process, incurved in a direction parallel to the inner corresponding margin of the opening in which it is placed. In such cases it is usually clubbed at the extremity. The *inferior turbinated bone* appears larger in bulk than both its other companions. It is seated at the outer half of the floor and the lower part of the outer parietes of each nasal opening. Its bulges out from its seat into an irregular globular form, nearly filling up the lower half of the opening of the nares. A probe run through what was apparently the inferior passage of the nose, appeared to come out above the inferior turbinated bone. The color of the mucous membrane covering the three turbinated bones is not always the same, so it is difficult to say what is the normal hue. It varies with the time of the day and the season of the year. It is not constant for a long time.

CASE XVII.—Physiological experiment on the author, showing the effect on the color of the mucous membrane of the turbinated bones produced by the insufflation of an aroma, observed by Dr. L. Elsberg, of New York:—Color of the mucous membrane of the turbinated bones, a pale whitish. Upon inhaling, chiefly through the right nostril, a pleasant aroma of a volatile character for about one minute, Dr. Elsberg noticed a deep color of a purplish character involving chiefly the mucous membrane of the turbinated bones of the right side. This experiment only confirms my own previous examination.

The following colors have been observed:—an ashy-white, a pale diaphanous white, and purplish hues like those seen upon the injected or uninjected wattles of the turkey cock.

From observation, I am inclined to think that a pale whitish is the normal color. The darker colors seen are due to injection of the bloodvessels of the very vascular erectile tissue, caused by the irritation of cold air, noxious or other vapors, &c.

It would seem as if there were a large amount of erectile tissue distributed in the substance covering the turbinated bones. This is evinced by the swelling as well as by the change of color. They are probably also the chief agents in the absorption of the vicious elements in noxious atmospheric vapors.

The color of the mucous membrane lining the interior of the nasal passages is of a more uniform tint than that of the mucous membrane of the turbinated bones. It varies from a pale red to a purplish red; sometimes injected bloodvessels and their branches are distinctly seen ramifying upon the surface. I have not observed them on the mucous membrane of the turbinated bones. This is very easily tried in the simple experiment of inhaling through the nostril the smoke produced by the primary ignition of a common sulphur match, then breathing in by the open mouth the same hyper-sulphurous vapor.

CASE XVIII. *Physiological Experiment.*—1866, May 8th, 1½, P.M. Auto-rhinoscopy by sunlight reflected into the house from without. Observation conducted in the house.

Mucous membrane covering the turbinated bones, ashy white. Inhaled through both nostrils the hypersulphurous vapor resulting from the primary ignition of a common sulphur match. The first effect on the color was to make it more white, which whiteness lasted for a few minutes. The next effect was to produce a purplish hue, not so deep as has been observed on cold mornings in winter. There was attendant with the purple hue a secretion from the mucous membrane, with a strong disposition to sneeze. The mucous membrane of the walls of the nasal passages was not observed to be materially changed in physical appearance. Very little if any of the hyper-sulphurous vapor passed into the lungs or windpipe, as was the case when inhaled through the mouth. This experiment seems to confirm Catlin's argument in favor of the great benefit derived from breathing through the nose, which he alleges has a straining and chemically purifying effect on inspired atmospheric vapors.

The Vomer.—The posterior part of this bone appears as an upright lamina of bone in the median line, forming the boundary line and division between the two nares. It does not show as sometimes it does in the prepared skull, like a lamina of uniform thickness, but as a septum, straight, narrow and white on its free edge, gradually expanding to a considerable thickness as it disappears in front. Its free surface is probably a membranous extension between the two bony processes, terminating in the dried skull the superior and inferior posterior boundaries of the vomer. Its upper part is regularly expanded, like the bole of an exogenous tree, symmetrically extending to either side, forming the inner boundary of the nasal opening. The lower extremity is similarly expanded, so that the shape of the free back edges of the vomer *in situ naturali*, and clothed with its normal investments, is something like a well-formed hour-glass-shaped support, large at top and bottom and small between. Its sides, at the upper part, are also expanded into what passes for the superior turbinated bone. The mucous membrane that covers the vomer is of a cartilaginous white on the free, sharp posterior surface, and passes into a pale red color.

The Internal Orifices of the Eustachian Tubes.—These orifices are not bony, as it would seem from their look in my case, but are composed of mucous membrane, with fibrous tissue. These are about one fourth of an inch in vertical diameter, and about three sixteenths in longest transverse diameter. They are irregularly triangular-shaped orifices, with rounded edges incurved. The base of the triangle is above. The inner side is parallel with the outer margin of the nasal openings. They are situated adjacent to the upper and outer quarters of the nasal openings. They are usually open, but are easily and always closed by the elevation of the soft palate upwards and backwards to approximate the post-pharyngeal wall—as occurs in the act of swallowing, or of irrigation of the nasal passages, thus evincing a wise provision against the admission of foreign substances into the internal ear. When open, they appear as hollowed excavations. The edges are incurved and smooth. In a case of a lady deaf in the right ear, the right Eustachian orifice presented deeply serrated edges.

The direction of the opening is backwards and inwards. From this circumstance and others, there has been suggested to the writer's mind the propriety of catheterizing the Eustachian tubes through the mouth and behind the velum palati. This process would avoid the pain and unpleasantness of the passage of the catheter through the partially blockaded nares, to say nothing of those cases, not infrequent, where the passages are distended by an abnormal deviation of the vomer and turbinated bones. *The writer has easily and successfully entered a bent probe into his right internal Eustachian orifice by means of the rhinoscope, and seen it there.* The color of the margin is a pale red. The color of the inside, or visible bottom of the orifice, is of an ashy white. The orifices of the Eustachian tubes are evidently of considerable rigidity, and of great patency when compared to the calibre of the meatus externus. The writer has never yet seen any representation of them that was accurate. Their appearance reminds one of that of the external ear, with its helix deprived of its tragus and antitragus.

I have observed no variations in shape while the palate was passive, which appears to be the agent whereby the Eustachian opening is shut or opened, but have frequently, in patients, observed them half and three quarters closed, the closing appearing to depend upon the drawing up of the soft palate, and the opening upon the relaxation of the same—the muscles engaged in this process being the levator palati and tensor palati.

Physiological objective observations show the Eustachian orifices sometimes to appear like a crescentic opening, and sometimes like a mere sulcus parallel to the upper and outer margin of the nasal opening. Sometimes, also, they look like the mouth of a cave dug out of the lateral pharyngeal wall.

[To be concluded.]

DR. VALERJ'S INTRODUCTORY LECTURE.

(Continued from page 365.)

THE discussion of such difficulties, or the just solution of them, comprehending, as a necessary consequence, both the necessity of medicine and the usefulness of the physician and his remedies, if it requires on my part a clear exposition of the subject, requires on yours the most serious attention.

In order to perceive that nature does not effect the cure of diseases with discernment or intelligence, it is requisite first to bear in mind, that we defined this term as being "an aggregate of forces, which, though special, efficient, and acting according to provident laws for the conservation of our economy, act, nevertheless, of necessity—that is, void of discernment or reflection with regard to the end in view; in other words, they operate fatally, physically, without knowing, or being enabled to avoid or modify the scope for which they were destined by the infinite wisdom of the Creator, namely, the health of the individual. Now the same happens in the state of illness. Nature, the moment our organism enters into the abnormal condition of suffering, displays her salutary activity, but without volition or choice. Indifferent with regard to the consequences of her operations, she is forced to act of necessity, not as a being endowed with will, *compos sui*, but according to those immutable laws which her Author has imposed upon her. Just as a stone thrown into the air invariably falls towards the centre of the earth; just as an acid, when it comes in contact with certain alkalies, is invariably converted into salt, so the *vis medicatrix nature*, invariably and unfailingly, unconscious why or how, effects the process of curing, of restoring health. It hence follows that when we physicians, observing a crisis, which, far from saving a patient, occasions his death, exclaim, *that nature deceives herself*, our declaration in this case should be received in a metaphorical, not positive sense; because error belongs only to him who possesses the faculty of choosing, and the consciousness of what he is transacting, and not to that which acts through physical necessity, ignorant both of cause and effect, and operating according to determined laws and with appointed instruments. Let me give you here some actual proofs of the truth of my assertion. Let us suppose that several persons, in order to pursue their journey, are constrained, in a state of perspiration, to cross a current of cold water, and that the arrested perspiration has been the cause of illness to them all. Nature, ever watchful and operating for their benefit, begets a fever, which on the morrow terminates in the case of one with a profuse diaphoresis; in that of another, far from ceasing, it progresses to a pneumonia; in the case of a third, it results in a violent and acute rheumatism. Now can we interpret these three different maladies, all derived from one identical cause, as an operation of a rational intermediating nature, acting with discernment, with pre-

science of the result, with well-pondered determination? No, certainly; for, if it were so, she would have produced the perspiration in them all by means of the fever, and would have thus equally freed them from their malady by the shortest, safest and least painful process. Suppose, in like manner, that two individuals have swallowed an equal quantity of poison, and that nature, in order to effect their recovery, has immediately brought on a fit of vomiting (the shortest and most efficacious remedy), and suppose, moreover, that one of them it fortunately cured, leaving no other effects from the poison than a sense of burning in the stomach; while the other, notwithstanding the vomiting, is laid up with a painful and mortal gastritis. These and many other examples, which you may multiply at your pleasure, as numbers of them occur daily, evidently prove that nature acts not with intelligence, that she is not free in her operations, and therefore no wonder that various and not invariably salutary must be, and really are, the modes and effects of her action in benefiting our affected organism. Nor, indeed, can it be otherwise; for, taking it as proved and granted that nature is the re-union of the forces inherent in the living organism, as she cannot exist or act without this latter, so she is obliged to operate in as many different modes as are the different physical conditions which this organism may assume. If we apply a motive power to a watch, or to any other mechanical apparatus, as long as the wheels and other parts of the mechanism retain their stated conditions as to form, size, relationship, &c., the motion will be such as was expected; but as soon as one, two, or all these conditions are modified, the motion must necessarily change, and the changes be proportioned to the respective modifications that have taken place; never ceasing, however, to act uniformly (that is, in perfect relationship and harmony) with mechanical laws. Thus it happens with nature in her dealings with our affected organism. Her beneficent action is unceasing, ever guided with admirable order and by admirable laws, but always subordinate to the condition of our frame, as the motions of a watch are to that of its wheels, and the works of an artizan to that of his implements and the substance which he handles. The better to understand one another, let us suppose that a legitimate inflammation has established itself in a sound lung of a robust person; nature will resolve it hastily by that process which pathological anatomy has now well determined. But if, on the other hand, this pneumonitis attacks a lung granulated with tubercles, or congested with chronic bronchitis, or a person of seventy years, feeble and suffering from disease of the heart—nature, even under such circumstances, will proceed in the work of resolving the pulmonary exudation; but, operating on organs, and with an organic frame quite different, the absorption of the exuded matter will be either incomplete or tedious, or arrested by the complications of co-incident alterations; so that, far from being cured, a chronic pneumonitis, or a phthisis, or even death itself, will be the result. Al-

ways bear in mind, however, and I deem it useful to repeat it, that these last-mentioned effects, although they seem different from the former, do not cease to be, like this, not only physically necessary, but even regular, that is to say, comprised within the scale of those laws which regulate the economy in its pathological state.

Let us now proceed to confute the second objection, which consists in considering medicine, and therefore also the physician, as superfluous or hurtful.

And, firstly, I will say that the very experience which teaches us that nature cures a considerable number of diseases without the concurrence of the physician, also daily teaches us that in various cases she remains impotent if not opportunely aided by him. We observe, in fact, as is easily to be conjectured, that her efforts, whether it be on account of the weakness or bad crisis of the organism, or on account of the virulence of the morbose causes, or the gravity of the pathological process, prove insufficient, sometimes excessive, or over-impetuous, and sometimes, too, wrongly directed.

Perhaps it is not possible to establish the exact limits, or mark with precision the circumstances wherein the exclusive power of nature ends, and where it begins to need the aid of art. But it may, nevertheless, be retained as a general maxim (of the truth of which you will shortly be convinced in the very outset of your career), 1st, that nature exercises less activity in chronic maladies than in acute ones; 2dly, that its predominant action, in acute maladies, may either be irregular or too violent, from which arises the necessity of an art capable of aiding, moderating and directing her. And here it will not be out of place to state precisely in what manner this art acts, and ought to act, in order to prove beneficial, and what instruments are to be used therefor. But to proceed aright in such a delicate and important matter we should consider what is meant by disease.

You are all aware of the numerous causes which disturb, convulse, or ruin the human frame. Some of these are congenital with the primordial development of the germs in the very act of its fecundation; others are engendered by the incessant exercise or motion to which all its parts are subject during life; others by the action of a number of agents which surround us, and act upon our organisms not only internally but even in the innermost recesses of our tissues. Cold, heat, light, electricity, air and the different substances it contains, our aliments and their contents, &c. &c., at the same time that they are the necessary and indispensable agents for the maintenance of our physical existence, create, moreover, to a great extent, the forces termed hurtful, or those that beget that state called disease. Now, however numerous may be the definitions that have been given of this state (definitions, all of which derived from a different system have variously and frequently, with deplorable consequences, influenced medical practice), the best, because most conforming to clinical reality, is that of considering disease as an alteration of the organ-

ism, or a *preternatural modification of the body*; a modification or alteration, which necessarily induces a corresponding disorder of its functional condition. What if, in some cases, we fail in discovering the existence of such a modification, or demonstrating in what it consists? Our frame is composed of parts, and of parts with functions; when we find these impaired, we are forced to admit that the instruments that produce them have undergone corresponding damage. The surgical diseases, nay all those termed external, prove this conclusion to be true; we find in each of them that with the functional element the anatomical element is also changed. If we are unable to do this in various cases of internal diseases, it should not be attributed to the want of a pathologic organic process, but to the circumstance that this is not so obvious to our senses as in the external diseases, baffles every attempt at being explored, and, for the most part, operates in the innermost penetralia of our economy. Moreover, if even in the physiological state the minute structure of some tissues, and the crisis of certain humors, are still far from being perfectly known, or from supplying us with a full explanation of the functions derived from them, can we be surprised if, in the pathologic state, many subtle alterations which these solids or fluids undergo should escape our notice?

But to penetrate somewhat deeper into the nature of disease, it is not sufficient to consider it a mere necessary organic alteration conjoined with a functional disorder, and produced by a morbid cause or agent. There is also another element equally indispensable and important, namely, the state of the forces, or the intermediary action of nature. Let a piece of red hot iron, or any other injurious substance, be applied to a person who had died a moment previously. Here you see a hurtful cause, a material alteration; but let it, instead, be applied to a living man: what a difference do we not behold in the appearance and quality of the lesion inflicted! What a diversity in the process which ensues! Now this difference, this diversity consists entirely in the presence and reaction of the *ensemble of forces* which we call nature, and whose existence lasts as long as life itself. In fact, whatever be the morbid causes, and the pathologic modifications which result therefrom, experience teaches us that nature instantaneously reacts on them, effecting with that order, and according to those laws and method, of which we already treated, the elimination of the morbose matter, the reparation of the damages inflicted, the recovery in fine of health, of which she is necessarily the protectrix. This stated, and wishing it to be understood that we include all morbid causes in general, we shall say that by an attentive observation of them, we are taught that nature, in this solemn and beneficial task, if at one time she succeeds completely by herself, at another fails, if we do not skilfully minister to her convenient aid. But what are these aids, with what end in view are they given or prescribed? Are they more efficient than nature herself? That is,

with regard to the cure, do they claim a principal part, a part superior to that of nature, or otherwise? This is what remains for us to determine in order to obtain the object of our lecture.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

SEPT. 24th.—*Fatal Case of Chorea following Criminal Abortion.*—Reported by Dr. WHEELER.

The patient was a healthy Englishwoman, about 33 years of age. She had aborted five days previous in consequence of a puncture of the membranes by some unknown person. She was then at the end of the third month of her third pregnancy. On the first visit, the patient was up and about the house as usual. She complained of nothing but an irregular and incessant motion of the arm, forearm and hand of the right side; soon the facial expression became disordered. The mind was clear. She seemed cheerful and inclined to laugh at the grotesque movements. She had no fever, no pain in the abdomen or tenderness of the uterus or its appendages. In a few days the whole excito-motory system became involved; the bodily contortions were violent; every voluntary muscle of the body seemed at times to join in the discordant dance. It was difficult to restrain the jactitations so as to confine the patient to her bed or keep clothes upon the body; the only quiet or sleep obtained was from the effects of chloroform or ether (the former seemed to work the best).

Treatment.—Cups, counter-irritants, with revulsive effects, heat and cold to the cervical region of the spine; internally—cathartics, nervines, opiates and narcotics: but all to no purpose. The patient died from exhaustion on the twentieth day from the time she aborted. In this case the puncture, or the immediate effects, must have done violence to one or more of the hidden links in the mysterious chain of the excito-motory element of the nervous system.

The fact of abortion was concealed from me; and I believe in this respect the case is typical of many which the family physician is called to take care of after the professed abortionist has preceded him and done the mischief.

OCT. 8th.—*Fracture of the Head of the Radius.*—Dr. HODGES showed the specimen.

A man fell sixty feet, injuring himself fatally, and died at the Massachusetts General Hospital, six hours after the accident. Among his injuries was one of the elbow, unattended by much swelling, and affording unusual facilities for careful examination. The essential features of the fracture were correctly diagnosticated by the surgeons who saw the case, but the *post-mortem* dissection revealed a longitudinal fracture without displacement, through the head of the radius, which was not detected during life by any one present. The rarity of this particular fracture, and indeed of any affecting the head or neck

of the radius, is conceded by all authors. The specimen shown presented a clear and regular split, involving very nearly one half the head of the radius, cleaving outwards so as to extend no further than the neck of the bone. It was accompanied by a very oblique fracture of the shaft of the ulna, commencing at the depression of the articular surface marking the separation of the coronoid process and the olecranon, extending almost longitudinally three and a quarter inches downwards, and detaching from the shaft that portion of the bone to which the olecranon was attached.

Dr. Hodges remarked that there were but very few instances of longitudinal fracture of the head of the radius recorded in the books. It was curious that, out of those cases he had found, three were associated with the rare accident of fracture of the coronoid process of the ulna, and an inspection of the present specimen would show that this also might have been a fracture of the coronoid process, had the longitudinal split which passed down the shaft of the ulna terminated anteriorly (towards which aspect it inclined and came nearest), instead of posteriorly.

OCTOBER 8th.—*Re-amputation; Hemorrhagic diathesis; Death.*—Dr. HODGES reported the case.

A single man, thirty years old, a shoe-maker by trade, received the kick of a horse, which resulted in a large, obstinate and bleeding ulcer of the shin, defying all attempts at cicatrization. The limb was consequently amputated below the knee, one year ago, by a distinguished New Hampshire surgeon. This gentleman states that at the operation the hæmorrhage from the end of the tibia was so profuse as to threaten life, and therefore the limb was immediately disarticulated at the knee-joint. The union of the flaps was by granulation, and they have never cicatrized, but presented, at the time of the patient's entrance to the Massachusetts General Hospital, a hæmorrhagic ulceration, which, though occasionally contracting to a small surface, speedily reverted to its usual dimensions. The patient reported that for several years he had at times had hæmorrhages difficult to control, and that he habitually slept with cotton-wool in his nostrils to guard against epistaxis. His general health, appetite, strength and digestion were said to be good. Re-amputation was performed just above the condyles, without any loss of blood during the operation. Oozing from the bone and a slight degree of capillary hæmorrhage, not exceeding what usually accompany amputations, were controlled by compression, so that the next morning the bandages, which had been kept wet with cold water, were simply stained, and the flaps, which were left open, were only partially filled with coagula. His general condition on the day following the operation was, however, a very unfavorable one, and ecchymoses from hæmorrhagic effusion were visible in the subcutaneous cellular tissue at the upper part of the thigh. His pulse was small and thready, and there had been repeated vomiting. He gradually sank, and died about twenty-four hours after the amputation. No autopsy was permitted.

One of the interesting points in the specimen (the end of the femur) shown, was the condition of the cartilages, which was unchanged; remaining smooth and unabsorbed, although the flaps had united to them by slight and easily ruptured adhesions.

OCT. 8th.—*Gun-shot Wounds of the Knee-joint and of the Pelvis.*—Dr. HODGES showed the specimens.

They were from a patient who was assaulted and shot in several places.

A bullet entered the tuberosity of the right tibia one inch below the articulation, and emerging on the opposite side close to the articulation, had fractured the bone into the joint, splitting the cartilages in various directions. Amputation of the thigh was performed at the Massachusetts General Hospital, eighteen days after the injury.

Another bullet, entering the right tuberosity of the ischium, fissuring it longitudinally and tearing up the internal surface of the bone at its point of emergence, traversed the pelvic cavity and impinged against the pubes on the left side of the symphysis, fracturing but not penetrating the bone, and then fell loose into the pelvis. No nerve or vessel of magnitude was injured, nor were the peritoneum or bladder wounded. The peritoneum was dissected up and separated from the pubic bones and the lower part of the abdominal parietes by an accumulation of pus, which, partly evacuating itself by the track of the bullet's entrance, had been still further vented by an opening into the abscess made through the abdominal walls and outside of the peritoneum, in the vicinity of the right inguinal ring, and through which the loose bullet had been extracted. The entire cellular tissue of the pelvis was infiltrated with pus, and of this cellulitis and the exhaustion incident to the gravity of his injuries, the patient died, twenty-two days after being wounded.

Nov. 12th.—*Hæmatemesis of long standing; Probable Gastric Ulcer; Recovery.* Dr. MORLAND reported the case.

The patient, an Irish servant girl, twenty years old, stout and well made, with no traceable hereditary tendencies, was admitted into the City Hospital, March 28, 1866. She had always had excellent health, until about ten months since, when, as she stated, while "fooling" with a young man, she was kicked by him, "in the stomach." It was ascertained that she had been put at very hard work, and had fared badly both as to food and general treatment. There was no evidence of her having been unchaste. Shortly after having received the kick, she had hæmatemesis, which has since frequently recurred, until, on admission into the Hospital, she was found to be excessively weak, and, for some time previous, had not been able to work, nor even to sit up. There had also been a sensation as of pressure upon the epigastrium. Three days before her entrance into the Hospital, she had very copious hæmatemesis reported as amounting to *two quarts*. No reliance, of course, could be placed upon this estimate.

Condition on Admission.—In bed; drowsy, but easily aroused by questions; offensive exhalation from skin; pulse 92, rather weak; respirations, 48; mouth dry; complains of much thirst; tongue white on lobes, red at tip; some white sordes on teeth; skin hot and dry; bowels constipated; no dejection for four days, although laxative medicine has been taken. Abdomen tender, tympanitic; no rose spots; epigastrium still more sensitive to the touch, from which patient shrinks, with evidently real and acute pain. Much pain in chest on long inspiration; this was somewhat relieved by a sinapism applied last night. Great anorexia exists; has eaten nothing since the 21th

inst. until last night, when she took some gruel, and retained it well. Catamenia regular, natural. Urine free, high-colored.

An enema, containing three ounces of the compound infusion of senna, was directed, and flaxseed-tea, iced and flavored with lemon juice, given for a drink. A drachm of the officinal solution of sulphate of morphia, at bed-time, was ordered—to be repeated in two hours, if no sleep.

29th.—Tongue, pulse and respiration same as yesterday; countenance flushed; has an anxious expression and knitted brow; circulation deficient. Pain in chest the same. Apply flaxseed poultice to seat of pain. Wine whey to drink during the day. Cold applications to head. Sponge arms and chest with spirit and water.

30th.—Pulse 80, sharp; hæmatemesis this morning, about an ounce in quantity; pain continues in chest. Opiated poultices were applied, and ice given freely, to swallow. Drinks as before, and cold sponging. If the vomiting of blood recurs, aromatic sulphuric acid to be administered, twelve drops, in half an ounce of water, three or four times in the day, or *pro re nata*.

31st.—The visit was made to-day by Dr. UPHAM, and the record is: Pulse 104, weak, irregular, wiry:—R. *Aquæ Camphoræ*, ℥ij.; *Liquoris Morphiæ Sulphatis*, ℥ij.; M.; ℥ss. every 2 hours. Hot mustard pediluvium.

April 1st.—Pulse 72, more soft and regular; respirations, 32. The bowels to be opened by enemata; chloroform, on spongio-pilin, to be applied to the seat of thoracic pain.

On the few following days there seemed slight improvement, although pain and "soreness of the chest" were still complained of. The pulse and respirations continued nearly the same as at the last record. She took pounded ice and sherry wine, and also broth.

4th.—The thoracic pain persisting, four leeches were applied over epigastric region. Ice and brandy to swallow. Hæmatemesis reported, following vomiting of food.

5th.—Tongue much cleaner. Reports herself "better." Pain less. No action of bowels for three days; headache. Pulse 68, small in volume; respirations, 32. Opiated fomentations; hot pediluvia; castor oil, ℥j.; lemon juice, ℥ss., *statim sumend.* On the 7th, the brandy was stopped, and iced milk, as diet, ordered, in small quantities, every two hours. Also arrow-root, occasionally. Hæmatemesis was again reported on the 8th and 9th, and there was pain described as *radiating* from the epigastrium, most marked towards the left side. This peculiarity of the pain, which was frequently noticed subsequently, suggested, at one time, the suspicion of malignant disease,* which, as is well known, has followed severe blows even in young and vigorous persons. The writer, some years since, reported a case of this nature to the Society, in which cancerous disease of the foot, in a child, followed a violent kick. A blister was applied to the seat of pain and kept open for some days. At several subsequent times blisters were applied, apparently with some benefit. On the 15th, hæmatemesis still continuing, one quarter of a grain of the sulphate of copper, in pill, was directed, to be taken twice in 24 hours. Diet strictly farina-

* "The pain (in gastric cancer) is, as a rule, more continued (than in gastric ulcer), much less influenced by the taking of food, and more radiating, being often referred to the right or left hypochondrium."—*Da Costa on Medical Diagnosis*, page 379.

ceous. Iced drinks. It being found that even custard, tapioca, &c., disagreed, the patient was put upon milk and lime-water as the sole diet—two ounces of the latter to six of the former. The proportion of lime-water was subsequently reduced one half, and more, on account of its being unpalatable to the patient.

On the 21st some gruel and arrow-root were allowed, but the moment anything of a more solid nature was permitted, hæmatemesis would occur. This was especially noticeable twice, when, at the urgent solicitation of the patient, some finely cut mutton chop and some milk-toast of baker's bread were allowed. The symptoms, thus provoked, subsided on resuming the milk and lime-water regimen. The pain, extreme prostration and nausea, consequent on any infringement, soon made the patient entirely reconciled to the restriction. The attacks became less frequent and severe, the dietary rules being strictly enforced. On the 14th of May, epistaxis took place, and was repeated on several mornings. There was also pain in the stomach and right shoulder. This yielded to anodyne applications, hypodermic injections, &c. On the 23d and 24th, blood was passed, quite freely, per anum, and pain was complained of over lower part of sternum. The pills of sulphate of copper, which had been discontinued for some days, were resumed, and a blister was applied to the seat of pain, with entire relief. No hæmatemesis was noted after the occurrence of the epistaxis, although the gastric uneasiness persisted for some time, and, as stated, blood was discharged from the bowels. With the exception of troublesome constipation, nothing was noticeable through the month of June, during which she was steadily convalescing, and began to eat, with impunity, broths, rare and finely-chopped meat, with farinaceous articles. She was put upon the tincture of the chloride of iron during the last week of her stay, and was told to continue it, for a time, when discharged. She left the Hospital, "well," on the 28th of June, and went to service. She might have been safely discharged a week or ten days sooner, but, being homeless, was allowed to remain until a situation was found for her.

Bibliographical Notices.

Clinical Notes on Uterine Surgery. With special reference to the Management of the Sterile Condition. By J. MARION SIMS, A.B., M.D., late Surgeon to the Woman's Hospital, New York: Fellow of the New York Academy of Medicine, of the New York Pathological Society, &c. &c. &c., and Knight of the Légion d'Honneur. 8vo. Pp. 401. New York: William Wood & Co. 1866.

We have too long deferred a notice of the remarkable book of Dr. Sims, but we are unwilling that it should pass without due recognition of its merits, tardy though it be. For originality, sound, practical views of uterine diseases and their treatment, great ingenuity in the devices suggested to meet special circumstances, and absorbing interest in its narrative of cases, it has rarely been equalled. The book is what it professes to be, a record of the practice of the author. It bears on every page the stamp of the master mind from which it came. The introductory chapter, on the Method of Uterine Examination, at

once impresses the reader with the striking traits of the author, ingenuity of contrivance, vigor and decision of purpose, with the most complete thoroughness. It is very evident that if the hidden mysteries of the uterine system are by any method to be brought within the reach of ocular examination, Dr. Sims's methods are just those to accomplish it.

The principal subjects treated of in this work are Conception, Menstruation and its various derangements, some of the diseases of the os uteri, mal-positions of the uterus, and the various causes mechanical and physiological, or rather pathological, of Sterility. All of these subjects are handled in the practical manner so strikingly characteristic of the book. It is in his treatment of Sterility that Dr. Sims has been led to make those experiments which have so extensively drawn upon him the animadversion or the ridicule of the medical press. We must confess we do not sympathize with either of these expressions of feeling. It should not be forgotten that child-bearing is in very many instances, or at least it *ought* to be, an essential condition to domestic happiness. In Europe it is of immense importance often in its influence upon the tenure of large estates, and hardly a stronger motive could be furnished to an active mind to exert all its powers of invention, to remove the obstacle which stands in the way of the successful exercise of so important a function. Dr. Sims has felt this, and has gone as far, it would seem, as man can go, to accomplish the desired end. It is an easy thing to see in his experiments subjects for satire or indignant disgust, if one is willing to overlook the end which he had in view. He was willing to put himself in a position as an experimenter, so far as we know entirely unprecedented, and which it is not difficult to regard as humiliating, and he has had the frankness to publish his experiments in the spirit in which they were originally designed: and we think he has hardly been dealt with fairly by his critics. For our part we feel that he has thus contributed very valuable additions to our physiological knowledge.

The book is printed in clear type and is copiously illustrated with wood-cuts, which are unusually expressive of the author's meaning. As a whole we regard it as one of the most valuable contributions to Uterine Surgery since the modern enlargement of this important field of practice.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., Professor of the Principles of Surgery, Military Surgery and Hygiene, and of Fractures and Dislocations in Bellevue Hospital Medical College, &c. &c. &c. Third Edition, Revised and Improved. Illustrated with two hundred and ninety-four wood-cuts. Philadelphia: Carey and Lea. 1866.

DR. HAMILTON's Treatise still holds its place without a rival as the very best on the important subjects of which it treats. It has now reached its third edition in the seventh year of its existence, evidence enough of its general appreciation by the medical profession. On a former occasion we spoke quite fully of the merits of this important work, and we need therefore only say now, that the present edition is an improvement on the first two. It contains, in addition to the matter which they contained, the results of the author's careful study of

recorded cases and observations since they were published, and a considerable number of new observations by the author in his private practice, and from "the ample fields of instruction in Bellevue and Charity Hospitals, New York." The author has also introduced from Gray's Anatomy a number of illustrations showing the centres of ossification and the subsequent development of bones, with the view to clear up the confusion which too often prevails even among surgical authors, between separations of the epiphyses and fractures. The chapter on Gunshot Injuries has been somewhat enlarged by the introduction of statistics from the records of the contending armies during the war of the rebellion, and a few wood-cuts have also been added. The present edition is well printed, and the wood-cuts, although not in the highest style of art, are in the main sufficiently good, making the author's meaning evident enough; it well sustains the reputation which the previous editions have earned.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 6, 1866.

THE PAST AND PRESENT SCHOOL OF PARIS.

THERE WAS a time when the French capital was looked upon by the medical profession throughout the world as the one and only seat of science, where alone the grand truths of our art could be discovered and taught. Students from every country went thither to complete their studies and to see the men whose names had been upon the lips of their teachers all through their early instruction at home as demigods in science, and whose opinions they had been taught to receive unchallenged as fixed principles. Even the hospitals which were associated with their teachings became famous, and Hôtel Dieu, La Pitié, La Charité, du Midi, St. Louis, were as familiar and classic names to the student of medicine everywhere, as the Parthenon and Forum had been during school and college days. The distinguished men who composed the Faculty were then at the height of their fame, and formed a body whose brilliant reputation was fully deserved and has never been equalled. Paris had then no rival as a school of medicine; she was the acknowledged front and centre of science. This was only a quarter of a century or less ago; but what position does she hold now? The earnest students of other countries no longer visit her exclusively, or even first or second, to complete their general studies, or to perfect themselves in any special branch of our art, nor is French now the universal or most important language of science, as it once was. The very names which then commanded such world-wide respect are now almost memories associated with the past, and are no more the representatives of the medicine of to-day.

What is the cause of this decadence? Why is it that the Wiener Schule holds at this moment the place then occupied by the Ecole de Médecine? The great masters in Paris have not died out and left their places to be filled by smaller men in Vienna, for with one or two ex-

ceptions the roll of French professors bears the same distinguished names that it did twenty-five years ago. Other causes have wrought the change. Gradually the philosophic German mind, so sceptical and irreverent as to accept no dogmas unchallenged, and so patient and industrious in following the suggestions of nature to their very source, began to make itself heard. This influence, at first felt in small things and expressed in special directions, soon became an acknowledged power as the careful observations of devoted students, men who cared for nothing else in life than their studies, who had no higher ambition than their scientific reputation, who knew no other pleasure than was to be found in the laboratory or hospital, and who never aspired to become rich, became known. Such men as these were called together, as their names and works attracted attention, and formed the Vienna School, a body of special students, in no way men of brilliant genius, but keen observers and accomplished teachers. It is this devotion to study in special directions as the prime object of their lives, science before wealth, which has made German medicine what it is. It has given us Rokitansky, Virchow and Förster in pathology; Wunderlich, Oppolzer, Skoda and Frerichs in medicine; Hyrtl in anatomy; Brücke and Ludwig in physiology; Jäger, Graefe, Donders and Arlt, Hebra, Sigmund, Zeissl and Scanzoni in special departments; Liebig, Lehmann, Scherer in analytical chemistry, and many other distinguished instructors who might be mentioned; it has made a knowledge of the German language a necessity to all who would know anything of the modern advances in science, and draws our students to Vienna and Berlin as the great schools of medicine.

In the mean time Paris has been living chiefly on the reputation of her past greatness, and the slight progress she has made has seemed complete stagnation by the side of the vast advance of her indefatigable Saxon neighbors. She is at last awaking to the fact that her present state is not equal to her former splendor, and is taking steps to recover her lost position in the scientific world. As will be seen by the changes announced in her faculty below, she is beginning her reformation in earnest. It is workers she wants, not great names, and if she can secure the former, she may in time make herself again a leader in medicine.

MEDICAL INTELLIGENCE.

WE announced in a recent number the resignation of MM. Trousseau and Cazenave, of the Faculty of Medicine of Paris. The *Union Medicale* says that there has been no resignation, properly so-called, of any member of the Faculty, but several of them have requested that they may be put on the retired list. In addition to those mentioned above, the *Union* gives the names of Professors Andral, Piorry and Cruveilhier. To these is to be added the name of M. Jobert (de Lamballe), who is said to be hopelessly insane. With regard to this movement the *Union* remarks, that some of these distinguished members of the Faculty have made the request of their own accord, *proprio motu*, and others have been *invited* to make it—adding, it is unnecessary to specify further.

By a decree of the 3d of the last month, MM. Andral, Cruveilhier, Piorry, Trousseau and Jobert were placed on the retired list, a position which has a pension attached to it.

By a decree of the same date, M. Piorry was appointed an officer of the Imperial Order of the Legion of Honor, and MM. Andral, Cruveilhier and Trousseau were appointed honorary professors.

Professor Trousseau's Reason for retiring from his Professorship.—In an editorial in the *Union*, by M. Amédée Latour, we find the following singular explanation of his retirement by M. Trousseau :—

"When, nearly thirty years ago, I was chosen professor," said Trousseau, "Orfila had been my judge, and I went to see him. 'Will you,' he said to me, 'have the courage to do that which I have decided to do? I am one of the most popular professors of the Faculty; I shall probably be so for a long time yet. Very well, at sixty-five years, without waiting for the public to leave me, I shall withdraw.' 'I engage to do the same,' I answered him, 'and you may depend upon it I shall not occupy my chair until I am worn out.' I have kept my word. I was sixty-five years old on the 14th of October, and I ask to be allowed to retire. The young should take our places; and if each one of us were to act in like manner our Faculty, although deprived of the grand institution of the *concours*, would revive its ancient splendor. The labor of consultation is heavy for the shoulders after sixty, the labor of a professorship is impossible." Thus it is to keep a promise made to a dead man, who could no longer remind him of it, and who himself did not keep his (for Orfila was still in his chair at sixty-seven years, of which no one, to be sure, complained), that M. Trousseau abandons his.

French Justice.—Under the title of Lorraine Jurisprudence the *Union Médicale* gives the singular result of a suit by a physician for the recovery of professional fees properly due him. The patient said, "I called in the physician but once; I owe him then for only one visit; if he came often, it is because he wished to do so. He cured me, it is true, of a very grave disease which prevailed in my village as an epidemic; on many occasions he cauterized my throat, to stop a mortal disease—all this is very true; but I did not ask him to do it, and I won't pay him except for the first visit." The unfortunate doctor lost his case, and in addition had to pay the costs of Court.

On another occasion the judge required the physician to prove by witnesses that he had been frequently called to his patient; and on his refusing to produce such evidence, the case was decided against him, without any evidence from competent persons as to the fairness of his charge being admitted.

Confirmation of M. Villemin's Experiments of the Inoculation of Tubercle.—Dr. LEBERT, Professor at Breslau, has been trying the experiment of introducing tubercle into the system by subcutaneous injection. The amount introduced varied from 50 centigrammes to a gramme, diluted and triturated with distilled water. The nape of the neck was the spot chosen for injection. The experiments were made with Guinea pigs and rabbits, and both grey and yellow tuberculous matter were employed, as well as liquid from a cavity. The result of his experiments was the finding of tubercles not only in the lungs, but in the liver, the spleen, the pleuræ, the pericardium, and the whole lymphatic system. Microscopic examination demonstrates the identity of these tubercles with those of man.

Death of Dr. Daniel Brainard.—Our citizens will learn with profound sorrow that Dr. Daniel Brainard, President of Rush Medical College, died at the Sherman House last evening, at a quarter past nine o'clock, of cholera. He was in good health as usual at six o'clock on Tuesday evening, and had, singularly enough, during the afternoon, read a lecture relating to the disease with which he was soon afterwards attacked.

Dr. Brainard had long held a recognized position among the most eminent surgeons of this country, and enjoyed a reputation abroad such as but very few in his conceded department have attained. His death will cause an irreparable loss to the profession, and to the institution of which he was the head, and will long be felt as a public bereavement by the city with whose founding and growth his life has been so closely identified.

Dr. Brainard had but recently returned from an European tour, and his family are now in Paris. During his illness he was attended by the Faculty of the Rush College.

A meeting of the Medical Profession will be held at the Common Council Chamber this afternoon at four o'clock, to take appropriate notice of the event.—*Chicago Republican*, Oct. 11th.

Connecticut Insane Hospital.—This new hospital is to be built on an eminence overlooking the Connecticut River, a mile and a half south-east of the city of Middletown. The building is to front on the Connecticut, and the grounds border on the river for three fourths of a mile. There are three streams of water flowing through them, upon one of which is a good water-privilege.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 1st, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	42	47	89
Ave. mortality of corresponding weeks for ten years, 1855—1865	37.9	41.2	79.1
Average corrected to increased population	00	00	85.77
Death of persons above 90	0	1	1

NOTICE.—Subscribers who have not paid their subscriptions for the current year, will find their bills enclosed in the present or a succeeding number of the JOURNAL, and an early attention to them will confer a favor on the publishers. The present facilities for forwarding payments, by money orders or otherwise through the mail, render it inexpedient to send out collectors as formerly, and subscribers need not therefore wait to be called on in this manner. The receipts for money received by mail at the Journal office will be enclosed in the next number of the JOURNAL after receiving it. Subscribers who do not thus receive a receipted bill after payment, will please at once notify the publishers.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 1st, 89. Males, 42—Females, 47. Accident, 2—apoplexy, 1—congestion of the brain, 2—disease of the brain, 4—bronchitis, 5—cancer, 1—cholera morbus, 1—consumption, 16—convulsions, 1—croup, 2—cystitis, 1—diarrhoea, 1—diphtheria, 2—dropsy of the brain, 2—epilepsy, 1—scarlet fever, 3—gastritis, 2—disease of the heart, 2—malformation of the heart, 2—insanity, 1—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 11—measles, 1—old age, 4—paralysis, 1—peritonitis, 2—premature birth, 1—puerperal disease, 4—smallpox, 1—syphilis, 1—unknown, 5—whooping cough, 2.

Under 5 years of age, 33—between 5 and 20 years, 7—between 20 and 40 years, 22—between 40 and 60 years, 12—above 60 years, 15. Born in the United States, 60—Ireland, 21—other places, 8.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV. THURSDAY, DECEMBER 13, 1866.

No. 20.

SURGICAL CASES, FROM THE RECORDS OF THE CITY HOSPITAL,
BOSTON.

[Reported for the Boston Medical and Surgical Journal by DAVID W. CHEEVER, M.D.,
one of the Visiting Surgeons.]

Ninth Paper.—TEN CASES OF PHLEGMONOUS ERYSIPELAS, DIFFUSE SUPPURATION OF THE CELLULAR TISSUE, ADHESIVE AND SUPPURATIVE PHLEBITIS, AND CHRONIC ABSCESS, TO ILLUSTRATE THE BENEFIT OF FREE INCISIONS, AND OF DRAINAGE BY SETONS.*

Diffused Suppuration of Cellular Tissue, resulting in a Sub-fascial Abscess of the Hand, and involving the Wrist-joint and Forearm; ultimately, Amputation and Recovery.

CASE I.—June 30th, 1866. C. B., æt. 40, washerwoman. So far as a correct history can be obtained, the patient had an abscess on the back of the hand, several weeks ago. It was neglected at first, then opened at the Dispensary, and neglected by her.

July 1st.—Examined under ether. The hand was infiltrated with pus; redness and cedema extending to the middle of forearm. The carpus was a bag of pus; the bones moving about like pebbles rubbing together. Free incisions were made, and setons passed in every direction. The constitutional state is bad.

3d.—Bad symptoms continuing, the openings were enlarged and setons passed through the wrist-joint.

4th and 5th.—Improving, but too feeble to repair and save her hand.

6th.—Forearm *amputated*, with oval, skin flaps, at upper third. The stump was very cedematous.

7th.—Great oozing has taken place; now the stump is coated with lymph and agglutinated. It was brought together; but becoming tense, it was left open until July 15th, when it was closed with adhesive straps.

The constitutional symptoms all improved after the amputation. The stump went on favorably, and healed entirely Sept. 4th, when she was discharged, well.

Although so extensive burrowing of sinuses from felon is not frequent, and usually leads to amputation, yet that this is not always the result, is proved by a case (II.) which presented itself to me at

* All the cases reported were under the care of Dr. Cheever.

the Central Office of the Dispensary, two years since. This patient had sinuses extending to the bend of the elbow, and perforating the carpus, so that the entire joint seemed roughened and necrosed. Very severe constitutional prostration was present. An unfavorable prognosis was given; yet with free openings and rest upon a splint, she ultimately recovered with an ankylosed wrist.

The following case, from the Hospital Records, seems to have been much benefited by setons.

CASE III.—June 2d, 1866. J. W. S., æt. 20, a carpenter, had a splinter of iron driven into the palmar surface of the left index finger, a fortnight since. It was opened, but afterwards became swollen and painful, pus burrowing up the palm and wrist, and the constitutional disturbance becoming severe.

June 4th.—He was etherized, incisions made, and three setons passed—the first, from the palm to the forearm, six inches; the second, from the palm through to the dorsum of hand, between the second and third metacarpal bones; the third seton from the palmar to the dorsal surface of the thumb. The index finger was necrosed. Pus was evacuated, and a poultice ordered.

6th.—Redness extended to the axilla.

7th and 8th.—Improving.

13th.—Forefinger and head of metacarpal bone amputated, by a lozenge-shaped incision, having a free longitudinal cut in the palm for drainage. No sutures were used, but the wound was closed by strapping the fingers.

14th and 15th.—Wound uniting.

Soon afterwards the setons were withdrawn, and he was discharged, well, on the 30th. There was *no stiffness* of the flexor tendons from the seton which traversed their sheath. Gentle capillary drainage was constantly kept up: and the cutting through of important parts, like the palmar fascia, or annular ligament, by long, sweeping incisions, was avoided.

Sub-periosteal Inflammation of the Metatarsus; Abscess, followed by Denuded Bone; Seton passed; Rapid Recovery.

CASE IV.—April 19th, 1866. Mary C., æt. 6, American. Ten days ago, the patient woke up in the night, crying with pain in the foot. Nothing detected at time. Suffering continuing acute, in a few days the foot became red and swollen, and it has continued to grow worse since. Now, the skin is tense and shining, and very red, but the child will not allow it to be examined. A poultice was applied, and in two days the matter pointed and broke, before it could be opened. A large quantity of pus discharged.

April 28th.—She was etherized and the foot examined. The middle metacarpal bone was denuded of periosteum through its entire extent. A sinus burrowed between the bones into the sole. A counter-opening was made, and a seton of silk passed.

May 1st.—Large quantities of pus discharge by the seton; but little pain.

16th.—Patient was etherized, and the foot examined, but no dead bone could be felt. The seton was removed.

June 3d.—The foot was entirely healed.

Of the benefits of thorough draining in this case, by counter-opening and by seton, we think there can be no doubt.

Diffused Suppuration of the Cellular Tissue beneath the Fascia Lata, consequent on a Punctured Wound; Free Incisions, and Drainage by numerous Setons; Good Recovery.

CASE V.—June 4th, 1866. T. W. C., æt. 34, carpenter. Patient was at work upon a staging, when he fell, and came to the ground, about twenty feet. As he struck, the corner of a hatchet, which he held in his hand, was driven into his thigh, making a deep, but narrow, punctured wound. After it occurred, he walked nearly a mile to a physician, who closed the wound. The hæmorrhage continuing, he called upon another physician, who opened the wound, and put in some liq. ferri perchloridi.

When brought to the Hospital, there was a little bleeding. A circumscribed tumor, of about three inches in diameter, existed under the muscles about the wound. Dr. Cheever having been sent for, the patient was etherized and the wound explored. The cut in the integuments was near the middle of the thigh, on the inside of the limb, about midway between the lower angle of Scarpa's triangle and Hunter's canal. The wound was about one and a half inches long, and extended down to the fascia lata. Through the fascia there was an aperture, only large enough to admit one finger. On slitting up the fascia lata and the skin, a clot as large as two hen's eggs was found effused between the muscles, and removed. The cavity having been syringed out, a moderate hæmorrhage oozed up from the bottom of the wound. On exposure to the air, this hæmorrhage ceased. The sheath of the femoral vessels was now seen, laid bare, but not opened. A wet compress was applied, and the patient put on low diet.

June 5th.—There has been no more bleeding, and the patient is quite comfortable.

6th.—Rested poorly last night. Face flushed; skin hot; pulse 120; bowels constipated. Ordered a cathartic. Acid drinks *ad libitum*.

7th.—Cathartic operated. Pulse 100; considerable fever still; thigh painful; wound beginning to suppurate.

8th.—Wound dark and sloughy. Pulse 110; no appetite.

9th.—Wound discharging; pain extending up to groin; less fever; pulse 90; poor appetite. Is fretful and anxious.

10th.—Has taken more food and some ale. Slight delirium at times. Discharge from wound dark and offensive. A counter-opening made and a seton passed.

11th.—More delirious; a bad night; wound dark and sloughy; discharges a dark, thin, sanious pus. Quinæ, grs. ij., every four hours.

12th.—Patient takes food better, but is very delirious. Pulse quick, jerking and compressible; tongue brown; skin straw-colored and dry; no chills or sweats; discharge from wound of a bad quality; thigh looks flattened and boggy, up to groin. He was etherized, and the limb examined. Numerous sinuses were found extending beneath the fascia lata as high as the groin, and down into the popliteal space. Pus had also burrowed between the layers of the adductor muscles. These sinuses were all opened at various points, on a long, eight-inch director, and four setons of silk passed, as high as Poupart's ligament and to the bottom of the ham. Large quantities of foul pus were evacuated.

13th.—Is still very weak, but is rational. Takes food well. Retention of urine. Pus begins to look better. Syringe through sinuses daily.

14th.—Improvement most marked. Pus laudable; appetite good; pulse 98. Says he feels better.

15th.—Continues to improve. Discharge very large, of good quality.

17th.—All the wounds filling with healthy granulations. Pus of excellent quality.

22d.—Improving daily.

July 1st.—Suppuration less. Condition favorable.

9th.—Setons removed, having been in nearly a month. Discharge small in amount.

16th.—Strap with adhesive plaster.

21st.—Discharged, nearly well.

In these cases setons, made of from two to four strands of silk, were employed. We have also used freely the rubber drainage tube of Chassaignac, in large inter-muscular and mammary abscesses. One seems to us about as good as the other. The setons are more applicable to small places like the hand, wrist and forearm, and to superficial, although extensive sinuses; the drainage tubes, to deep and larger suppurating sacs. One drains by capillary attraction; the other by its tubular character. The latter can be conveniently syringed through, thus washing out a deep cavity.

Phlegmonous Erysipelas of Leg, following a Prick of the Fascia; Fatal Result.

CASE VI.—July 8th, 1866. M. H., æt. 26, waiter. June 28th, while stretching a carpet, he kneeled upon a tack, and drove it into his leg nearly its entire length. He suffered considerable pain. It continued to trouble him more and more, and the next day he was obliged to give up work. The leg grew gradually swollen, red and painful. Now (July 8th), the leg is immensely swollen, tense and very red; the blush extending three inches above the knee, and dusky

lines running up towards the groin. The whole limb is œdematous. A sense of fluctuation is evident below the patella. The rest of the lower leg is tense and boggy. Patient is suffering from severe constitutional prostration. Under ether, several very free incisions were made—one, from the lower border of the patella, downwards for four inches; another, on the posterior aspect, three inches; a third, on the inner side, two inches. These gave exit to a large quantity of dark, offensive pus—thin, shreddy, and filled with the *débris* of broken-down tissues. A charcoal poultice was applied. Rum, \bar{z} vi. per diem, and quinine, gr. ij., every four hours. Good food.

July 9th.—Patient rested well; pulse 112; tongue coated, but moist. The red blush has extended, and the tissues above the knee are still tense. Another long incision in ham. Opii, gr. i., every six hours.

10th.—Redness and swelling less; countenance looking much better; pulse 120; circulation in foot better; pus still dark and offensive. Syringe wound with chloride of soda.

11th.—General condition improved. Granulations springing up around incisions, and discharge better.

12th.—No appetite; very drowsy; offensive pus again.

13th.—Stupid, but easily roused; pulse 100. Not sufficient change to attract attention. In the evening he suddenly grew worse, with great dyspnoea; could not be roused. He was stimulated without avail, and sank and died. No autopsy.

“The principal morbid changes in phlegmonous erysipelas are found in the blood. When the disease has passed the first stage, and depression has come on, the blood loses its disposition to separate, and forms a thin, loose coagulum.”

“The presence of pus-corpuscles in the blood of patients suffering under severe erysipelas, has been noticed by Dr. C. J. B. Williams, and others. This may account for the frequent association of erysipelas with manifest pyæmia.”

“A very important fact has been mentioned by Mr. Busk, viz., that in all the fatal cases which he examined, the lungs were highly congested, and that, on close inspection, the smaller pulmonary vessels were always found to contain pus; that, in fact, a minor degree of pyæmia was always present. He has observed the same thing in the small veins of the head, when that part has been the seat of erysipelas.”*

It seems probable that our patient perished by similar changes taking place in the blood, and in the lungs.

Phlegmonous Erysipelas following a Fall on Leg, succeeded by Adhesive Phlebitis and Gangrene.

CASE VII.—March 25th, 1866. John M., soldier, æt. 33; intem-

* Holmes's Surgery, vol. i. p. 237.

perate and syphilitic. Eleven days ago he fell while going up stairs, scraping skin off of left leg. Walked about a week, when it became so painful that he had to lie in bed. Now, the leg is much swollen, of a dusky red color, with a thin, sanious pus issuing from the wound. Pulse 100, feeble; tongue coated; pain severe. A director passed four inches under the skin over the tibia, without violence, and the skin was slit up to that extent. *R.* Pulv. opii, gr. ij.

March 27th.—Discharge still unhealthy. Director passed two inches under skin, on outer side of leg, and the sinus laid open. Also an incision on inner side of leg. Ordered two pints of ale, daily.

31st.—Swelling of leg much diminished. General condition improved. Pus laudable. He was given, at his own request, a cathartic.

April 1st.—The opium was omitted.

3d.—The ulcer was dressed with equal parts of tinct. myrrh and water.

5th.—The ulcer looks better.

6th.—Great constitutional disturbance. Pulse 120; very restless; no appetite; great pain. A large gangrenous slough at upper part of ulcer. Slough removed, and strong nitric acid applied. *R.* Quinæ sulph., gr. ij., every four hours.

7th.—Still some gangrene; acid re-applied.

9th.—Gangrene still extending. Lower part of leg and foot, on dorsum, of a green color, as from commencing mortification. Leg œdematous. Epidermis looks loose. Temperature unchanged. Femoral vein hard, corded, occluded and tender. Bromine applied to ulcer, and then a dressing of bromine water.

10th.—Patient is taking all the stimulants he can bear. Ordered, by his request, decoct. absinth. Pulse 92. A whitish line of demarcation separating slough. Leg looks the same. Takes food well. Ordered, sodæ sulphitis, gr. xxx., ter die.

11th.—Slough has separated.

12th.—Leg looks better; less discoloration. Ulcer cleaning. Femoral vein still occluded.

17th.—Leg better; granulating; foot resuming a more natural color. Vein still occluded. General condition better.

22d.—Improving. Dress with liq. sodæ chlorinatæ, $\frac{3}{4}$ i.; tinct. opii, $\frac{3}{4}$ ss.; aquæ, $\frac{3}{4}$ v. M. There is now a bad odor from the leg, though it looks well.

26th.—This P.M., sudden attack of great pain; pulse 120; great constitutional disturbance. Explained, next morning, by a dark gangrenous slough, with everted edges. Bromine applied. Dressed with bromine water. Increase stimulants.

29th.—Leg looks sloughy still. Pulse quick and feeble.

May 1st.—Gangrene spreading. Re-apply bromine, under ether. Pulse better.

4th.—The same. Omit all previous medicine, and give pil. hydrarg., gr. i., with opium, ter die.

6th.—Bone denuded, but ulcer cleaner.

9th.—Ulcer granulating well again.

11th.—Some stomatitis. Omit pil. hydrarg.

14th.—Ulcer granulating, but lower edge everted.

18th.—A healthy ulcer.

31st.—Sitting up.

June 10th.—Discharged, nearly well.

Thus in three months, this patient, broken down by war, intemperance, malaria and syphilis, underwent phlegmonous erysipelas, adhesive phlebitis, and two attacks of gangrene.

In striking contrast, as to the disease in the veins and as to result, is the following case.

Lacerated Wound of Hand ; Suppurative Phlebitis ; Pyemia ; Death.

CASE VIII.—May 26th, 1866. P. W., æt. 67, temperate, and of average health. While at work at his trade, had his hand drawn in between two smooth rollers, only half an inch apart, made for rolling dough. The palm is torn open; the skin dissected up from the palmar fascia, but the only tendon exposed was that of the middle finger. A mass of bruised and torn muscle in the thenar region protruded from the wound. On the back of the hand the tissues were dissected up, and much blood effused beneath. The bruised tissue was trimmed away, and several free incisions made on back of hand. The limb was placed in a tin splint, with water dressing. Morphine sulph., by injection, gr. $\frac{1}{4}$.

May 27th.—Very comfortable; but little pain; pulse 88.

28th.—Suppuration beginning. General condition good.

31st.—An extensive suppuration on dorsum of hand, and the extensor tendon of the index finger is exposed.

June 2d.—Wound granulating. Patient is taking ale, and rum.

4th.—Doing well up to last night, when he had a severe chill. The wounds look well, and nothing appears in the arm to account for his condition.

6th.—Another chill, not so severe, but well marked. Says that he feels pretty well, but looks tremulous, and sweats profusely. Pulse 96; tongue coated; appetite pretty good.

7th.—Much the same. Sweats freely. No chill. Retention of urine; relieved by catheter. The veins of the forearm are swollen, dark and enlarged. There is no œdema, but an evident sluggish circulation in the veins. In some places, an entire stasis of the venous circulation. Veins, however, soft and compressible.

9th.—Has continued much the same the last two days. Complains of no pain, but has a great feeling of weakness and sinking. Profuse perspirations; pulse 88; tongue has a thick, white coat. In addition to stimulants, &c., was ordered ammoniæ carb., gr. iij., with

camphor, opium, aa gr. ss., every four hours. Wound of hand continues to look well.

12th.—The only change is greater weakness.

14th.—Two chills; profuse perspirations; very feeble; condition of veins the same; no œdema; hand continues to granulate.

16th.—Severe chill at 10, P.M., and perspiration. Respiration rapid and labored.

17th.—Two chills. Respiration very difficult.

18th.—Chills continue. Pulse 96; respirations 34. Takes rum, $\frac{3}{4}$ viij., daily.

20th.—Pulse irregular; venous condition of arm unchanged; wound of hand healthy.

22d.—Involuntary evacuations; semi-conscious.

23d.—Died at 3, A.M. No autopsy allowed.

In these two cases of adhesive and suppurative phlebitis (VII. and VIII.) there are numerous points of comparison. The appearance of the wound in the first was sloughy and gangrenous; and ultimately the whole limb was threatened with sphacelus, from the obstructed venous circulation. In the second case, the wound remained healthy and unaffected by the grave constitutional disease. In the first, the vein was hard, corded, and obstructed by adhesive inflammation, which was limited. In the second, the veins of the forearm were all affected with a stasis of circulation, and the formation of soft, loose clots, which, being carried into the circulation, ended in pyæmia, while the wall of the vein was not affected.

Large Abscess in Lumbar Region, not connected with the Vertebrae; Free Opening; Rapid Recovery.

CASE IX.—June 13th, 1866. D. T., æt. 38, glass-blower. Was a strong, healthy man up to four weeks ago. Was then, without known cause, attacked with rigors, and intense pain in back, compelling him to keep his bed. Soon, a tumor began to show itself in lumbar region, on left side of spine. This has continued to increase ever since. It is surrounded with a wall of lymph. It is some eight to ten inches in diameter. Fluctuates readily. Is red and painful. Patient looks as if he had been a strong man. Is now somewhat reduced. Sweats profusely; appetite poor; pulse 100.

June 14th.—Abscess opened by a free incision. Four pints of pus, laudable and inodorous, evacuated. No connection with diseased bone found at bottom of abscess. Ordered a poultice. Patient exhausted and sweating. *R.* Acidi sulphurici aromat., gtts. xxx., ter die.

16th.—Perspiration less; feels better. Discharge continues large. *R.* Ale, Oiss.

18th.—Improving fast. Abscess diminishing.

20th.—Discharge almost stopped. Slight attack of diarrhœa.

28th.—Gaining strength. Discharged, well.

Lumbar Abscess from Caries of Spine, descending upon the Hip; Laid open by a large Incision.

CASE X.—July 10th, 1866. J. McG., æt. 8. Seven years ago left Ireland, and while on the passage out he got a fall upon his back, from which he soon recovered. This was the only injury he ever received.

Three months ago, first noticed an abscess coming on the outer side of the upper part of left thigh. This swelling increased and became painful, and now forms a large fluctuating tumor, extending up under the glutæi and down upon the upper third of the thigh. The boy looks pretty healthy and strong, and walks quite well. There is no limp, no complaint of hip, nor can pain be elicited there. The femur moves freely on the ilium when patient stands upon the other leg. The position of the limb is natural. When walking, he carries his shoulders and back in a stiff manner, and cannot be induced to bend his back in order to pick up things from the floor. The spinous process of one lumbar vertebra is a trifle prominent; there is lateral curvature; no tenderness there.

It is diagnosticated as an abscess connected with caries of the lumbar vertebræ, taking the unusual course, sometimes seen, down over the nates, and outside the thigh.

July 13th.—Patient was etherized, and the abscess opened by a long incision. A pint of healthy pus was evacuated, after which compression was made by strapping.

14th.—Considerable febrile re-action; pulse 112; face flushed; no appetite; vomiting. Ordered milk and lime-water.

15th.—More comfortable; pulse 96. Pus continues healthy.

16th.—Discharge diminishing. Says he feels well.

18th.—Ordered tinct. ferri. chlor., gtts. x., ter die.

23d.—An increase of discharge.

28th.—Still tenderness over hip. Obligated to lie quietly.

31st.—Discharge very profuse; pus laudable. Appetite good.

Aug. 2d.—Increase iron to gtts. xv., ter die.

7th.—Discharge still abundant.

10th.—Last night severe pain; now better.

16th.—Discharges only two ounces daily. General condition improved.

20th.—Still less discharge.

25th.—Deformity in back more apparent.

Sept. 3d.—Discharged, relieved.

In this case the free opening of a cold abscess, connected with disease of the vertebræ, seems to have done no harm.

In the other (Case IX.), the free exit given to a limited cold abscess was followed by speedy recovery. In a third case of cold abscess, connected with hip disease, we have seen very bad results follow a slow evacuation by a small puncture. While the expedi-

ency of always opening these large abscesses, when connected with diseased bone, is still undecided, we yet believe that, when opened, they should be by the most free incision their limits will allow.

DR. VALERJ'S INTRODUCTORY LECTURE.

(Continued from page 383.)

THESE aids consist of all those means which in medicine are called remedies, inasmuch as they are proper to effect a salutary modification during a state of illness, and to remedy the damages which it has occasioned the affected organism. Hygiene, pharmacology, surgery, physic, the air, our food, the different exercises of the body, mineral waters, &c., supply such a plentiful quantity of them that we may assert, without danger of contradiction, that there is nothing that encompasseth man in this earth which has not been, and which cannot be administered as a remedy. However, although each of these substances produces a change, an impression on the organism, this change or impression is not absolute, that is, dependent solely on their chemical or physical properties, but relative and subject to the properties of the organism itself to which they are applied. As between our partaking of food and its being transformed into blood there occur a series of vital acts, to which we must refer in order to explain this truly wonderful and sublime phenomenon, so between the application of any medicament whatever and its effect there intervenes the action of our economy, and determines its real character. Hence it follows that, not *a priori*, but from experience alone, do we come to know the different properties of the numerous means which we call remedies. We see that some of them purge the stomach or intestines; others promote diuresis, diaphoresis, or expectoration; some temper the body's heat and its fevered motions; some soothe the pain or dissolve the spasm; others revive, strengthen and bind the tissues, &c., thus forming an array of practical and positive knowledge, not deduced from any preconceived notions of ours, but from observation and experience. Now, when we prescribe such substances it is clear that we do so with the view of producing such effects; but to the end that they may prove beneficial (for otherwise the substances prescribed would be no longer remedies), it is requisite that they should conform with those which nature herself, as sole curer of diseases, would adopt if she were (as happily she often is) self-sufficient under such circumstances. Nor could it be otherwise, inasmuch as the physician, being ignorant of the intimate nature or essence of the disease, being acquainted only with the manifestations pervious to his senses, cannot at his pleasure and choice imagine or produce solutions and crises, but only imitate, promote and regulate, by his previous knowledge of the effects of the remedies, those which are applicable to each morbose case, and which observation and clinical

experience have taught him to be the best suited. Thus, as we observe that nature is wont to cure an indigestion by a fit of vomiting, a gastric obstruction by purging, a plethora or inflammation by a hæmorrhage, a tumor either by resolution or suppuration, and so on; when we perceive by a variety of signs with which experience has also made us acquainted, that she is incapable of administering such resources, we assist her by such means as are adapted to produce the said effects, taking heed that they be justly suited to each special case; for we should expect no good, nay, should harm the patient, if we sought to cure, as in the cases above mentioned, an indigestion with sudorifics instead of emetics, a gastric embarrassment with expectorants rather than with purgatives, plethora with cordials instead of bloodletting, and so forth. Now, to come to a conclusion, as we have all the elements at hand to do so properly, if nature, unassisted, cures the greatest part of maladies, acts with the same object, order and method, even in those that prove superior to her power and resources; if the remedies prescribed in her aid are, in these cases, nothing more than new instruments placed in her hands, and by her directed towards promoting, moderating and regulating her operations, it follows that *true medicine* consists in *nothing else* than in the *art of imitating nature*, of interpreting and ascertaining her wants, to the end that the physician may opportunely administer to her the aid required. But if medicine be simply the imitation of nature's operations, if the physician be nothing more than her *interpreter et minister*, and the remedies simple instruments in her hands, we are bound to agree that nature, not medicine, not the physician nor his remedies, is the curer of diseases, although medicine, by teaching the physician the art of assisting her, and the physician himself by administering to her his remedies have, by their salutary effects, contributed their share in the task. On the other hand, whereas nature would sometimes be inefficient to effect the cure without the intervention of remedies, and whereas these cannot be obtained without the physician, and whereas, again, the physician cannot prescribe them to any useful purpose without being acquainted with his art, so it would be equally just and proper to assert that maladies are cured by remedies, or that they are so by the intervention of the physician, or of medicine. The difficulty, as you may well perceive, consists entirely in assigning, in this operation, to each agent its proper place and relative degree of influence; and I flatter myself that, from all I have hitherto stated concerning nature, you will not hesitate to assign her the first rank, considering her as the first and efficient cause, the physician and his remedies as second and subordinate causes.

And to the end that you may thoroughly understand the value and meaning of this argument, so important as to contain within it the pivot of sound doctrine and medical practice, you will allow me here to quote for you a somewhat lengthy passage from Galenus,

who, in commenting on the ever-memorable words of Hippocrates, "*natura morbis medetur*," explains this subordination of causes all operating towards one and the same end, namely, the cure of diseases, in a manner and with a lucidness worthy an interpreter of such singular genius and ability.

He, Galenus (in Hippoc. Epid., L. iv., Com. v.), after having observed that Hippocrates asserted, with reason, that nature cureth diseases, thus continues:—"Certain persons will perhaps imagine that this opinion does away with medicine, and converts it into a superfluous and useless art. The words of Hippocrates contain a hidden sense, and require an ampler explanation; and as this subject has not yet been handled amongst us, I shall proceed to unfold it.

"If, then, any one might say that he can rid himself of his malady by means of good *aliments* taken in time and in proper quantities, by means of *fomentations*, *clysters*, *bloodletting*, or other similar measures, such an assertion would not be false, nay, it would be equivalent only to saying, that physicians cure, and that medicine contributes to the recovery of health. But as it may be said, with truth, that physicians cure diseases, so it is equally certain that nature contributes something towards the conservation of the creature, and that she is more particularly instrumental in curing when she effects some *critical evacuation* of noxious humors, as, for example, by means of urine, perspiration, &c. Thus, whereas nature, the physician and medicine may be equally said to be instrumental in *curing* diseases, so the question may be simply reduced to that of ascertaining which of them should be placed in the first rank, which in the second, and which in the third; and this especially, because, as many other circumstances concur in effecting the cure, we cannot easily assign to each of the said agents that place which actually belongs to it.

"Thus, therefore, nature, properly speaking, cures maladies of herself; but it may be likewise said, with equal propriety, that medicine, the physician, and even the very instruments that are adopted, cure them also. We may add, moreover, that the cook who supplies the *aliments*, the artificer who has made the instruments, and the pharmacist who has prepared the drugs, all contribute something to this end, since we avail ourselves of these individuals in the preparation and compounding of the remedies. However, though we say that they prepare the *remedies*, it is not just or accurate to say that they prepare the *materials* of which these remedies are composed, for there is nothing which can really become a remedy if it be not administered under proper circumstances. Thus *wine*, opportunely administered, becomes a *remedy*; whereas if given to a patient wrongfully it may prove the efficient cause of phrenitis, delirium, &c., and hence merits not to be called a *remedy*, but should be considered as a *hurtful cause*. Who, then, is properly the cause

why wine acts as a remedy? Is it not he who finds out the method of applying it under proper combinations? But who is this person, if it be not the physician? and it is precisely for this reason that he should acquire the requisite knowledge respecting the subordination of the *causes* concurring to maintain or restore health; for the physician is much more necessary for the patient's health than the wine which he prescribes, whereas *wine* is not and cannot be a *remedy* unless it be given at the time indicated by a number of circumstances, and in such quantities as these circumstances require."

"It is, therefore, the physician alone who knows the time and manner of using medicaments, not from the fact of *his being an animal endowed with reason*, but on account of his having learned the art of distinguishing what is salutary from what is quite the contrary. Indeed, if he possessed this knowledge simply on account of his being a *rational animal*, certainly all men would be physicians. Hence it follows that the art of medicine is superior in character and dignity to the physician, this latter not finding it in his power to subdue diseases save by the aid of art. Just in the same manner as the instruments he adopts are serviceable to him and his *art*, so *medicine* and the *physician* are serviceable to *nature*, which disposes, governs, and directs all the operations of the human body. Therefore, it is clear how superior is nature to all arts whatever, though they contribute in some wise towards the conservation and re-establishment of health; for it is their office simply to supply her with the materials to be used, just as the other subordinate arts supply materials to medicine and to the physician.

However, though it may be properly said that nature is the principal art of all those that contribute to health, or, in other words, the *primary* and *efficacious cause* of health itself, nevertheless medicine, the physician, and the remedies he uses, may be considered as so many *secondary* and *subordinate causes*, all concurring to produce this effect; and whereas if, in this *chain of causes*, one only were wanting, the others could not possibly accomplish it, so it must be most evident that *medicine* is not a *superfluous* or *useless art*."

I now flatter myself to have addressed you at sufficient length to qualify you to sit as competent and impartial judges of the question which has formed the exordium of this, my first lecture; and I hope that you will not hesitate to give it as your verdict regarding the query in general, that *nature cureth maladies*, and on the particular case of the patient, whom we suppose to be assisted and cured with the utmost nicety of art, that *nature cured him also*, availing herself, however, of the remedies seasonably supplied by an able and skilful physician. The honor, therefore, of the cure is divided, and no one better than Galenus could indicate in such a masterly style the respective degree of praise and action to be assigned to each agent.

Just to recapitulate in a few words what we have hitherto expounded, we say—

1st, That by nature we should understand the aggregate of all the forces proper to man, unceasingly and necessarily operating with providential order and laws towards his conservation, both in health and illness.

2d, That the existence of these forces, mysterious in their essence and their mode of operating, is not a gratuitous supposition, but a fact constantly tested by experience.

3d, That it is this very experience which proves that nature heal-eth diseases; many of them by herself, others with the physician's aid.

4th, That the physician is therefore useful and necessary, inasmuch as he understands the art of aiding her.

5th, That this art is medicine, modelled after the works of nature herself, that it possesses means fitted to aid her, and teaches the physician the time and mode of prescribing them.

6th, That these means are the so-called remedies, not because they directly remedy the evil, but indirectly, that is to say, acting as instruments whereof nature avails herself in producing those crises and processes with which she only can, and is wont to cure.

[To be concluded.]

A SINGULAR DISEASE OF THE TOES.

WHAT IT IS? INFORMATION DESIRED.

To the Editors of the Boston Medical and Surgical Journal.

MESSRS. EDITORS,—Dr. Wucherer, of Bahia, a gentleman well known to our scientific men and an Honorary Member of the Massachusetts Medical Society, in his letters to me, has repeatedly alluded to a singular disease affecting the little toes of negroes in Brazil, and requested me, as he had previously done in conversation, to ascertain whether any such disease had been noticed in this country; and, if described, to obtain for him whatever had been published on the subject. Having failed, in a limited correspondence with residents in the Southern States, to learn whether any such disease has ever been seen there, I ask the assistance of the JOURNAL, in the hope that some one of its readers may be able to give the desired information. I give below a description of the disease from Dr. Wucherer, adding a small wood-cut from a photograph which he sent to me. The subject of the photograph had both little toes alike affected.

“I have been requested,” says Dr. Wucherer, “by my friend and colleague, Dr. Silva Lima, of Bahia, to try and procure for him from your country, anything that may have been printed on a peculiar form of disease which attacks the little toes of African negroes, and

on which he has made especial studies. It is not an elephantiasis; and, so far as I know, has not been described, except by Silva Lima. I think it never attacks any but the little toes. It commences on the outer side, not on the inner side of the toe, by the formation of a groove, which extends gradually round, at the same time deepening. It is attended with severe pain. The neck becomes gradually so thin that it is easily nipped off with the scissors, and in the amputated part barely vestiges of bones are found. It is rare in females. It is very common in negroes born in Africa. What is it? Is it known in your country, and has there been much written about it? Whatever has been written Dr. Silva Lima wishes much to possess. He and I make bold to ask of your kindness to let us know what you can about it, and to send any book or paper that may contain reference to it."



Any information, even of a negative character, concerning this singular disease, or any printed papers relating to it, which may be sent to the subscriber, will be thankfully acknowledged, and at once transmitted to Dr. Wucherer.

B. E. COTTING.

Roxbury, Mass., December, 1866.

Bibliographical Notices.

The Elements of Prognosis in Consumption, with Indications for the Prevention and Treatment. By JAMES POLLOCK, M.D., Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, &c. London: Longmans, Green & Co. 1865. 8vo. Pp. 432.

It is remarkable that with an abundance of books on the pathology and treatment of Consumption, we search in vain through medical literature for information which will help us much as to the progress and duration of any one case; in fact, the subject of the Prognosis of Consumption seems hitherto to have been almost wholly neglected. The fatal character of the disease has apparently so impressed those who have attempted its study, that while all agree that many cases last for years, and that some appear to be really cured, no one seems to have thought of studying the conditions on which these fortunate results depend. In the work before us, the author has attempted a solution of this difficult question. His object is to show under what conditions consumption tends to assume a chronic form, so that, in a large number of cases, we may be able to give a tolerably accurate prognosis, and to apply such treatment as will offer the best chance for the prolongation of a comfortable existence. The results which he presents are based chiefly upon a minute study of upwards of five thousand cases which have come under his observation at Brompton Hospital during a period of over ten years; and they are truly encouraging. They prove that the duration of life in consumption has been much underrated, and that while many patients die rapidly, there is

still a large proportion who survive for a long time, often for many years, and that, too, in comfort, and with the ability to pursue active and responsible occupations. In fact, the average duration of phthisis, taking the most rapid as well as the most chronic cases, has been raised (owing doubtless to a more rational treatment) from two years to three, and even four.

Maintaining the constitutional nature of phthisis, of which the tubercular deposit in the lung is but the local manifestation, the author points out the error which has hitherto prevailed, of considering the disease as a simple affection of invariable progress and termination. According to him, it includes many different varieties, each characterized by its own peculiar course and mode of termination. He endeavors to discriminate between them, and to assign to each its different characteristics, especially as regards probable duration. The origin, remote or proximate, of the disease; the age, sex, diathesis, social condition, occupation of the patient; intercurrent affections and complications, &c., all serve to modify the tubercular disease, each in its own way, and to influence, more or less, the rapidity of its course. Other divisions adopted by the author are, "chronic first stage," "chronic second stage," "chronic third stage," "diffused tubercle," "tolerated cavity," "strumous phthisis," &c. The value of certain symptoms and complications, such as hectic, diarrhœa, vomiting, sweating, hæmoptysis, emaciation, "wavy inspiratory sound," "digital clubbing," &c., as well as that of hereditary influence, menstruation, pregnancy and lactation, is also duly considered, as modifying the course and duration of the disease.

The last six chapters of the work are devoted to the subject of the Treatment of Phthisis, including the prophylactic, hygienic, specific and direct; and to the therapeutic effects of various climates. They are full of sound views, based on rational pathology and a very large experience. We would particularly call attention to the hygienic treatment recommended for those who are hereditarily disposed to phthisis. It would be a blessing if the value of Dr. Pollock's suggestions could be widely appreciated, so that children threatened with this dreadful malady might be spared the risks entailed by excessive mental stimulation, prolonged confinement in school-rooms, and exposure to the rarefied atmosphere of our furnace-heated houses.

We regret that our limits allow us to give but a meagre sketch of this work, which will take the highest rank in medical literature, and indeed must henceforth become the indispensable guide of every physician on the subject of which it treats—one of the most important and difficult in the practice of medicine. M.

Inhalation in the Treatment of Diseases of the Respiratory Passages, particularly as effected by the use of Atomized Fluids. By J. M. A. DaCosta, M.D., Physician to the Pennsylvania Hospital, &c. New York: John Medole, 193 Pearl St.

At the present time any experience in the use of this new method of bringing medicinal agents directly in contact with the diseased surfaces in the respiratory organs is of interest. The thin octavo before us is a re-print of a paper by Dr. DaCosta, communicated to the *New York Medical Journal*. It contains a number of wood-cut illus-

trations of the various forms of apparatus which have been employed for atomization, and so far as it goes is a valuable addition to the literature of the subject, the reputation of the author giving it special authority.

Diagnosis and Prescription Record. Fourth Edition. New York: W. Wood & Co., 170 William St.

This is a pamphlet publication intended to aid the practitioner in his daily practice to keep full and exact records of the condition of his patient, and of his treatment. The greater part of it is made up of pages which, on the left half, contain blanks for the date, name, age, disease, pulse, respiration and temperature of the patient, with a space below for a memorandum of the prescription. On the right half of the page, the prescription given to the patient is to be written and then torn off, like a bank check from a check book. In the latter part of the pamphlet a number of tabular forms are introduced, for exact record of all the phenomena connected with the pulse, temperature, the auscultatory signs from day to day, and the chemical and microscopic condition of the urine. Exact observers will find this a very valuable register for their daily work.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 13, 1866.

CORPORAL PUNISHMENT OF GIRLS.

CORPORAL punishment, the most degrading and least justifiable of all forms of corrective discipline, bad enough as it is when administered to boys is utterly revolting and abominable when applied to girls. One might have supposed that the common judgment of mankind had forever consigned it to the tomb of past ignorance and brutality as an element in our systems of education, had not the occurrence of last summer, in the neighboring city of our oldest University, made it too painfully apparent that reform was needed in this respect where we should have least suspected it. Much as that occurrence is to be deplored, however, and disgraceful as it was to all the parties directly or indirectly connected with it, we are not sorry that it happened just as it did, in a locality which made it especially conspicuous. It has led to such indignant protest from men whose voices are most likely to be heard the farthest, that the public exposure thus given to the transaction must have great weight in doing away forever in this part of the country with the whole system of which it is a part. We do not suppose for a moment that such occurrences are common, and it is libellous on our New England character and our school system generally to quote the case in question as evidence of prevailing feeling or prevailing custom here. Still, it shows that neither public opinion nor statutory provision had settled the question beyond appeal, and that there was constant danger that the ungoverned temper

of a passionate teacher might at any time revive a custom which never could be characterized by any other name than brutal.

All friends of education here must rejoice in the popular verdict of the recent election at Cambridge, which has set the seal of universal condemnation on the occurrence to which we have alluded. Its power must be felt far beyond the immediate locality where it took place. Some of the most eminent men connected with the University have made their influence felt in this movement, and a gentleman of the medical profession, Dr. Morrill Wyman, has spoken seasonable words at a public meeting before the election, which must have had great effect upon his hearers. They were words of a wise, benevolent man, and they forcibly present the whole subject in its true light. He regards it as a moralist and a physiologist. His remarks, as printed in the report before us, are so excellent that we cannot refrain from giving our readers the following extract from them :—

“ Why should not girls be treated as boys? Because girls are not boys. Every parent having children of both sexes knows that they have moral characteristics which at once distinguish them before they arrive at the school age. They are weaker in body and more sensitive in feeling, and are more occupied with the impression they make upon others long before they know its value. That delicate sense of propriety which distinguishes the woman has already its germs in the girl. They seem to know instinctively that they cannot rely upon physical strength, and as instinctively cling to others for support and protection. They are gentle, docile, confiding and affectionate. They exhibit these gentler qualities at home and in school in a thousand ways; they hasten to meet their teacher as she approaches in the morning; they run by her side, they seize her hand, and evince their affection by kisses upon her cheek and roses upon her desk. The skilful and faithful teacher takes advantage of these qualities, especially of their docility, and so moulds them that corporal punishment is not only unnecessary but it is cruelty.

“ Physiologically she is different, and to this I would most earnestly beg your attention. Her blood corpuscles are smaller, her nervous system is of a more delicate structure, her brain is lighter, and her muscles smaller; she is made for quickness and vivacity, but not for strength and endurance. The same reasons which prevent her from sharing the rougher games and plays of boys should protect her from suffering the harsher punishments of boys. She is more sensitive to internal emotions and external sensations; and I assert, without fear of contradiction, that no physician can be safely trusted to advise for the preservation of health or its restoration who disregards even in the child the distinction of sex. The most eventful period of her physiological life is spent in schools. During this period there is not unfrequently mental uneasiness, irritability and depression, easily mistaken for petulance and defiance by the unwise, and I greatly fear has sometimes produced punishment for that for which she is answerable to her God alone.

“ With a rapidity of development unknown in the other sex, she becomes a woman, with all a woman’s refined sensibilities, hopes and fears. She now instinctively knows that upon the good impression she makes upon others is based her hopes for the future. If her physical organization is sensitive, her spiritual nature is doubly sensitive,

and it is this which makes her what she is. It is in vain to count the number and weigh the severity of the blows upon her person, and note the hours that elapse before their marks disappear. Her spirit is wounded, she is disgraced and degraded; years may not efface the consequences. It is this that stirs the sensibilities and brings down the censure of the greater part of the civilized world, and from none is that censure more severe than from cultivated women. Strike not a woman, even with a feather, is the motto of civilization, and it is in accordance with the spirit of Christianity also."

Mistaken Use of Statistics relating to the Mortality among Natives of New England.—A few weeks since, a correspondent pointed out a grave source of error in an article copied into this JOURNAL, based on mortuary statistics, by which it appeared that the New England stock was dying out. A similar error in the statements of Dr. Allen, of Lowell, with regard to the vital statistics of Massachusetts, has been exposed by another correspondent in the *Medical and Surgical Reporter*. The error, it will be remembered, consisted, while giving the births, in reckoning these according to the birthplace of the parents; while in giving the deaths all were reckoned according to the place of nativity of the individual; thus classing numbers among foreigners by their birth, who at their death were classed among Americans. We have only space for a tabular correction, by the author, of Dr. Allen's erroneous deductions with regard to Boston:—

"If, then, we notice both births and deaths, according to parentage, which is obviously the only correct method, we find the following results for Boston, in 1865:—

<i>American Parentage.</i>		
Births, 1650.	Deaths, 1245.	Gain, 405.
<i>Foreign Parentage.</i>		
Births, 3587.	Deaths, 2868.	Gain, 719.
<i>Unknown Parentage.</i>		
Births, 38.	Deaths, 428.	Loss, 390.
<i>Total Population.</i>		
Births, 5275.	Deaths, 4541.	Gain, 734.

"Thus, instead of a loss of 1502, as stated by Dr. Allen, there was an actual gain of 405 to the native American population, by the excess of births over deaths. This gain of the American population is actually greater, relatively, than that of the foreign population."

Mortality from Cholera in New Orleans.—From an editorial in the *Southern Journal of Medical Sciences* for November, we learn that the number of deaths from cholera in that city from July 29th to August 31st was 544; during September, 469; in October to the 18th, 124; total, 1137.

Mortality from Cholera in Chicago.—From the Report of the Committee on the Sanitary Condition of Chicago, and the recent Prevalence of Cholera in that City, by Dr. N. S. Davis, we learn that the

number of deaths from this disease during the month of August was 139 ; in September, 166 ; in October, 135 ; total, 440 : of which number only about 35 per cent. were natives of the United States.

The Relative Mortality of Phthisis.—According to the report of the State Librarian of Connecticut, in 1863, out of 7,470 deaths from ascertained causes, 1,131 were from phthisis pulmonalis; in 1864, of 8,132 reported deaths, 1,171 were from the same destructive disease; and in 1865, of 7,039 deaths, 1,108 were from this cause.—*Medical Record.*

The Medical and Surgical Monthly, of Memphis, Tenn., and the *New Orleans Medical Record*, have suspended publication.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 8th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	33	33	71
Ave. mortality of corresponding weeks for ten years, 1855—1865	38.7	35.6	74.3
Average corrected to increased population	00	00	80.72
Death of persons above 90	0	0	0

ERRATA.—In last week's issue, p. 375, part of the fourth line from the bottom should read "which are properly the visible posterior," &c.; p. 376, third line from bottom, read "occasional swelling"; and on p. 377, 2d line in 3d paragraph, read "hyposulphureous vapor"

BOOKS RECEIVED.—A Treatise on the Principles and Practice of Medicine; designed for the use of Practitioners and Students of Medicine. By Austin Flint, M.D., Professor of the Principles and Practice of Medicine in Bellevue Hospital Medical College, &c. Philadelphia: Henry C. Lea. 1866.—Conservative Surgery, as exhibited in remedying some of the Mechanical Causes that operate injuriously both in Health and Disease. With Illustrations. By Henry G. Davis, M.D., Member of the American Medical Association. New York: D. Appleton & Co. 1867.—Infantile Paralysis, and its Attendant Deformities. By Charles Fayette Taylor, M.D., Resident Surgeon New York Orthopaedic Dispensary, &c. Philadelphia: J. B. Lippincott & Co. 1867.—Transactions of the Medical Society of the State of New York, for the year 1866.

JOURNALS RECEIVED.—Medical Record, Nos. 18 and 19.—New York Medical Journal for December.—Medical and Surgical Reporter, Nos. 18-22.—Medical News and Library for December.—Buffalo Med. and Surg. Journal for November.—Chicago Med. Examiner for November.—Cincinnati Journal of Medicine for November.—Medical Reporter, Nos. 17 and 18.—Nashville Journal of Medicine and Surgery for November.—Richmond Medical Journal for November.—Southern Journal of Medical Sciences for November.—L'Union Médicale, Nos. 125-139.—London Lancet (reprint) for November.—American Journal of Pharmacy for November.—Chemist and Druggist for November.—Journal of Materia Medica for November.—Dental Cosmos for November.—University Journal of Medicine and Surgery, No. 5.—American Eclectic Medical Review for November.—The Herald of Health for November.—Medical Investigator for December.—Proceedings of the Boston Society of Natural History, Nos 25-27, vol. x. No. 1, vol. xi.—Hall's Journal of Health for December.—Phrenological Journal for December.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 8th, 71. Males, 33—Females, 38. Accident, 1—aneurism, 1—apoplexy, 2—asthma, 1—congestion of the brain, 2—disease of the brain, 5—inflammation of the brain, 2—bronchitis, 5—consumption, 10—convulsions, 2—croup, 2—drowned, 1—dysentery, 3—erysipelas, 1—scarlet fever, 3—typhoid fever, 2—indigestion, 1—infantile disease, 2—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 4—inflammation of the lungs, 4—marasmus, 1—old age, 2—puerperal disease, 3—scrofula, 1—smallpox, 1—disease of the spine, 1—tumor, 1—unknown, 5.

Under 5 years of age, 30—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 45—Ireland, 21—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXV. THURSDAY, DECEMBER 20, 1866.

No. 21.

CHOLERA ;

AS IT APPEARED IN ROXBURY AND VICINITY IN THE SUMMER AND AUTUMN OF 1866.

[Read before the Norfolk (Mass.) District Medical Society, Nov. 14th, 1866, by B. E. COTTING, M.D., of Roxbury, President of the Society.]

In the course of the last summer and autumn there appeared in the northeastern half of Roxbury and the southwestern portion of Boston which adjoins or is in part embraced by it, a territory of about two miles square, and having at least forty thousand inhabitants, cases of a disease which those who were called to attend, or to witness, readily recognized as similar to what they had seen, here and elsewhere, in former epidemics, and unhesitatingly called *true cholera*. It also showed itself in Cambridgeport, just over the Charles River, as it were in a continuation of the above-named territory, and was there considered unmistakable. The propriety of the name, however, was strenuously questioned by those who had not seen the cases,* and by officials, who seemed to think the appearance of this disease an impossibility in view of their well-laid plans to prevent its coming.

A lamentable case appalled all the disputants, and hushed all the doubters.

The first case in the order of time is that reported in Cambridgeport, June 30th; next we hear of it near Davis St., July 20th; then near Grove Hall, Aug. 6th; again, near Milldam, Aug. 16th. It was on Washington St., near Roxbury line, Aug. 30th. Between the 1st and 15th of September, it was in East Canton St., Chester Park, Washington St., and other distinct places on Boston Neck, and also in adjoining parts of Roxbury—Fellows Court, Reed St., Davis St., &c., including St. James St. From Sept. 16th to 23d, it was again at Cambridgeport, near its first locality. At the same time it was in Roxbury on Tommy's Rocks, in Linden Park, and, Sept. 28th, in

* Attempts were made to identify these cases of *disease* with a not infrequent *disorder*, from indigestion, &c., called in this neighborhood *cholera morbus*; but an experienced physician *at the bedside* of one of these fatal cases would no more have that disorder suggested to him than he would measles when over a case of malignant scarlet fever, although these two diseases were formerly confounded.

Myrtle St. There were also three or four scattered cases in Boston beyond the territory in question, and one reported at South Boston. The cases I speak of were either seen by myself with the attendants, or were reported to me from reliable sources.* In all, including the Cambridgeport cases, there were nineteen deaths—nine males and ten females; with an equal if not greater number of recoveries. There were doubtless other cases, of which we have no accounts.

These cases had the vomiting and purging, rice-water discharges, sunken features, blue surface, shrivelled skin with loss of elasticity, and muscular cramps, together with suppression of urine, husky voice, apathetic indifference to their condition and prospects, and final collapse, which mark so plainly true cholera.

The victims were from all classes and conditions of men, and from all ranks and occupations of life—the eminent and the lowly; one living on his income, and another who labored for daily bread; those who fared sumptuously every day, and those who were uncertain whence the next meal would come; those who had eaten heartily, and those who were a-hungred; those who occupied new and clean houses (with all the modern improvements), and those who hardly knew where to seek shelter; a mother, singly, from a houseful of inmates, shut out from the world by home duties, and the stalwart man while walking the crowded street to his daily work; several in an over-populated place, or one from among many; Americans, Irish, Germans and others; men, women and children of every variety of temperament, habits, constitution, and actual state of previous health; the old inhabitant of the city, and the visitor from the country. In short, those attacked were in “adventitious circumstances,” not differing from other members of their families, their neighbors, or the rest of the community, who were not taken.

The locations were almost as various as the classes attacked. The low lands suffered, but the high and airy did not escape. So also the dry and the wet places; by the water and towards the country; the exceeding cleanly and neatly kept, and the neglected and filthy; the gravelly hill-side, the rocky elevation, the valley and the marsh; each and all felt its influence.

How the disease arose, or whence it came, is not known. It is pretty certain that it was not brought in from abroad. The “*traditionary trunk*” was not; nor the traveller, diseased or sound, calling at the door.† It did not spring out of the ground, unless all

* Drs. Munn and Arnold, of Roxbury, Dr. Sheldon, of Boston, and Dr. Wellington, of Cambridgeport, on whose authority, with my own, rest the statements in this paper.

† There were two cases in another part of Boston from that we write of, and not alluded to in this paper, reported by the City Physician as coming diseased from New York and Philadelphia. They were fatal; but he “took precautions to prevent the spread of the disease.”

A resident of Northampton St., which bisects the region which had the greatest number of cases, went with his family some fifty miles into the country. On the second night, he was attacked, according to his wife’s account, with “purging, dirty dish-water, turbid discharges, having no smell; vomiting, the same; voice low; was heavy; apathetic, quite unlike himself in any other sickness; cold; had purplish, wasted, shrivelled expression; great appa-

varieties of earth and pavement alike exhale it. "Germs" were not "left behind" in all "the water-closets and privies" used by the victims previous to their attack, unless by a miracle.* It could not be charged to contaminated water;† the water was pure and there was abundance of it. Neither was it carried from house to house. With the exception of four groups, of two‡, six§, three,|| and six¶ cases respectively, and each of these groups isolated, the cases were solitary—the several individuals being unknown to each other, and in no possible way coming in contact. Of relatives attending an Irish wake, four succumbed of five immediately taken, while scores at the same gathering escaped; but no one of the numbers in the households of other victims, or at their funerals (some very largely attended), suffered from the exposure. In a house where all the bedding and clothes were "disinfected or burned," a second case at once occurred; while none appeared in several other dwellings where all things unpurified were kept in constant use. No instance occurred, so far as known, amongst those who washed or otherwise cleaned the clothing and articles used by the sick. All the nurses and attendants escaped attack.** Lastly, the disease made no selection of reputedly unhealthy places,†† and "Church Street district," within the limits of the present attack, and foretold to be its "chosen place," was not invaded by it!

rent loss of flesh"—in short, all the symptoms. He recovered. No one else about him, or of the household visited, was at all affected, though no "precautions" were taken.

* "We have satisfactory evidence that the disease is communicable through the evacuations of those affected by it, and in this way only."—Dr. LEE, *Boston Medical and Surgical Journal*, February, 1866, p. 23.

So far as known, the cholera stools of all the solitary cases we write of were "emptied into necessaries and water-closets in common use" without producing ill effects of any kind.

† "Certainly past experience shows that contaminated water, if not the only, is yet a common cause of cholera."—Editorial, on *Cholera*, *London Medical Times and Gazette*, August, 1866, p. 174.

‡ At Cambridgeport, husband and wife died within forty-eight hours of each other.

§ Six in another house, in no way connected with the first; four died within forty-eight hours; two were removed, and recovered. No one was affected by the removal, though there was great excitement among those residing near the place removed to.

|| In Fellows Court, in adjoining houses; no intercourse between the houses; Irish and German.

¶ "Davis St. Cases"; relatives; in constant intimacy; as likely to have been attacked from one and the same cause, whatever that may have been, as to have got the disease from one another.

** We merely relate the facts. Deny the contagion, and these are *positive facts*; assert it, and they then become *negative facts*. "Since we know not the immediate agent, the primordial cause of cholera, such facts are positive or negative, according as one takes ground for or against contagion."—*L'Union Medical*, May, 1866, p. 207.

Among the "unanimous conclusions" of the *British Cholera Commissioners* are the following, which illustrate some of the difficulties attending adhesion to a narrow exclusive theory. (We italicize the conflicting statements.)

"That cholera is *communicable from the diseased to the healthy*." * * * * *

"That cholera may be transmitted by exposure of persons to the atmosphere of buildings, places or vessels which have been occupied by cholera patients, and to the emanations from clothing, or other articles which have been in contact with diseased individuals, or which may have become soiled by their discharges." * * * * *

"That there is no reason to suppose that cholera is communicable by actual contact between individuals." * * * * *

"That, therefore, nursing in cholera is less dangerous than in some other contagious diseases"!—*Despatch to the Earl of Clarendon*, No. 21, May, 1866.

†† "It would require but a few minutes to trace with the finger on the map of the city the precise localities where this disease will prevail, should it visit us, as well as the spots where it will prove most virulent."—*Report of the City Registrar of Boston*, 1865, p. 18.

Without questioning now the possibility of contagion or communicability in certain circumstances, these cases certainly tend to show that such is not the only or principal mode of propagation of cholera. "The disease," said a neighboring physician, "seemed to drop down without provocation." "Its heaviest sprinkling," said another, "was between the 1st and 20th of September." Evidently there was a morbid influence (Villemin's *nuage cholérique*?) on the locality, seen only in its effects. It disappeared, as it came, without observation. Of a truth, the mysteries of its movements have not as yet been solved.

During the past season, affections of the bowels were not more prevalent than usual; in fact, the number of deaths from such causes fell somewhat below that in the same months of the year previous. According to the Registrars' Reports, the number of deaths in July, August and September, was, 74 in 1865 against 57 in 1866, in Roxbury; 435 in 1865 against 397 in 1866, in Boston.

Though less general, and therefore creating less alarm, the disease was not less severe where it struck, nor less rapid in its course, than when epidemic in former years. Fatal cases generally terminated in six to thirty hours; and were only occasionally continued through several days. In favorable cases convalescence was occasionally rapid, though in most instances it was prolonged, and accompanied with feverish habit. In two or three patients, a typhoid condition followed, and continued for weeks.

For the results of the only autopsy made in these cases, see this JOURNAL, Sept. 20th, 1866, p. 171.

The treatment varied with the different attendants, and the several cases. External warmth always; sinapisms sometimes, were applied. Opiates and alcoholic stimulants were, so far as known, generally administered. So far as known, also, no very "active course" was resorted to in any case. In fatal cases death was generally attributed to the severity of the attack; and no one has yet been heard to declare that recovery in any case was due, solely or chiefly, to the efficacy alone of the drugs administered. In one case, through the tardiness of the messenger, the medicines did not arrive until the patient, on the borders of collapse, began to revive; though the attendant thought that convalescence was hastened by their subsequent administration. In another, no remedies were used, except a little hot drink and external warmth. The patient recovered. A case treated homœopathically proved fatal in twelve hours.

"The vast numbers of remedies recommended," says *Championnière's Journal*, "are the too eloquent evidence of the poverty of our resources in confirmed cholera." As the advocates of each of these remedies, and of various and opposite modes of treatment, claim for themselves special success, the inference is legitimate that the disease has a spontaneous termination, as rigid observations show, due little if any to the drugs administered, and sometimes in spite

of their action. This view is now regarded with more favor than heretofore, and its truth more readily admitted. Listen to Dr. Wilks, of Guy's Hospital, who thus frankly announced the true principle on which all treatment should be based:—"It is surely better," said he, "that the fact should be acknowledged, openly and at once, that we are acquainted with no drug which is capable of checking the course of cholera. We are not afraid to say this as regards typhus, and to shape our treatment accordingly. There would be hope of our learning something of value respecting cholera if we would consent to abstain from referring to the action of our drugs" (and he might have added our so-called "precautions," sanitary and hygienic measures, important though these be) "phenomena which form a part of the natural history of the disease."—*Lancet* (reprint), Oct., 1866, p. 636. In fact, the opinion expressed some time since to this Society (*Boston Medical and Surgical Journal*, Jan. 18, 1866) was in no way weakened by the results of any of the cases hitherto under observation, namely, that "that treatment is best which, with the least violence or perturbation, may soothingly tend to support the vital powers during the progress of the disease to its spontaneous termination."

In the paper last quoted it was stated, that whenever the disease should appear it would probably "disappoint public and private calculations, putting at defiance human control or management." That it has preëminently done so the last season it will need no argument to convince those who have given attention to the discussions upon the subject. In its short and comparatively mild incursion here, it seems to have imitated the greater outbreaks in other countries. M. Blondel, *Inspecteur de l'Assistance Publique* at Paris, "free from all preconceived ideas, and stranger to all the questions of the schools," gives as the results of official investigations, "that the invasion occurred at almost the same moment at all points of the capital; that the disease attacked simultaneously persons having no intercourse with each other; . . . confirming similar observations in former epidemics."—(*L'Union Médicale*, May, 1866, p. 205.) "It is here, it is there, and everywhere. It is in England, in Belgium, in Holland and in Germany. Italy alone seems to have escaped;* a fact which shows that although the disease accompanies armies, it is not the necessary and inseparable accompaniment of war."—*Championnière*, Aug., 1866, art. 7142. A fact which shows, also, that legions returning from an infected country do not necessarily carry it with them.

In other countries a mild attack of cholera one year has too often been the precursor of a severer outbreak in the following. Let us hope that any expectation or fear, founded on its recent appearance,

* Unfortunately, Italy, which escaped the importation through its returning armies, can now claim no exemption, the disease having since appeared simultaneously in several distinct sections of the country.

that a similar return may be looked for here, will prove groundless ; and that in this, as in so many other instances, the disease will again disappoint public and private calculations, if any are made on such an hypothesis.

REPORT OF INTERNATIONAL SANITARY CONFERENCE ON THE
HYGIENIC MEASURES TO BE ADOPTED FOR PRESERVATION
AGAINST ASIATIC CHOLERA.

THE Report of the International Sanitary Conference upon the hygienic measures which should be adopted for preservation against Asiatic cholera is divided into six sections, the conclusions arrived at under each being as follows :—

1. As to the hygienic measures which should be adopted in the localities or countries deemed to be the permanent foci of cholera.

There are no direct means of extinguishing the endemic foci of cholera, but we may hope to accomplish it by a combination of measures, amongst which hygienic measures may be expected to play the most important part. Amongst these measures the Commission enumerate a proper sanitary organization, the preliminaries of which have been already set on foot by the establishment of permanent sanitary commissions at the seat of government in each of the Indian Presidencies. Next come the necessary measures for improving the health of towns, again already set about in Calcutta, Bombay, and Madras, and at some of the principal military stations. Next they refer to those measures which relate to the health of our troops, such as have also been taken in hand by our Government ; and lastly, those calculated to obviate the danger arising out of the pilgrimages. These are of two kinds—viz., such as are calculated to prevent the development of cholera in the places of pilgrimage during the time that pilgrims resort thither, and next those which are calculated to prevent the propagation of the disease by the pilgrims on their way home. The Commission express a hope that the British Government will continue to pursue, and even extend, the path of reform upon which it has entered, and, above all, recommend that it should not renounce measures of coercion. They remind us that, the transmissibility of cholera being given, and the slow operation of hygienic measures being known, measures of restriction and isolation will be indispensable for a long time yet, in order first to prevent importation (always threatened), and then to give time for hygienic measures to produce their results.

2. As to the hygienic measures for preventing, as far as possible, the importation of cholera by sea.

With this object they recommend the adoption of proper measures of naval hygiene ; having regard, first, to the departure of a vessel ; secondly, those to be adopted during the passage ; and thirdly, on

the arrival in port. The following is their advice on this head, with a view to obtaining uniformity of action:—

(1) To open *concours*, and to give prizes to the authors of discoveries or improvements, having for their immediate result some progress towards the improvement of the wholesomeness of ships, the amelioration of the hygienic condition of their crews, or the welfare of the passengers. (2) The publication of a Manual of Naval Hygiene for the use of the mercantile marine of all countries, the carrying out of the more important directions of the manual to be made obligatory upon all captains and masters of vessels. (3) The encouragement by insurances and rewards to such owners, captains, or masters of vessels as are distinguished for the good condition in which they keep their vessels and crews.

3. As to hygienic measures for lessening the chance of disease being received into harbors.

The Commissioners conclude that the mode of rendering harbors healthy, besides prohibiting the discharge of the common sewers of the town into them, their periodical dredging, and a good sanitary police at the port, consists in the use of those hygienic measures which are the most important as affording preservation against transmissible diseases in general, and cholera in particular.

The rendering wholesome of those quarters contiguous to the harbors, and a very stringent sanitary police there, are also most important preservative measures.

4. As to the hygienic measures for lessening the predisposition of localities to suffer from the disease.

The adoption of measures for improving the wholesomeness of towns is an efficacious means of opposing the reception of cholera and of mitigating its ravages. Such measures consist generally in the use of means calculated to maintain the purity of the air, a proper and abundant supply of wholesome water, and the prevention of the infection of the soil by organic matters.

The disinfection on the spot and instantaneous removal of all excrementitious matters is a hygienic measure of the greatest importance, especially in cholera seasons.

Dr. Dickson informs us that, in addition to the above recommendations, it has been proposed by the Conference that water-closets, drains, &c., shall be disinfected by chemicals from the very moment that diarrhœa begins to manifest itself in a place threatened with an impending outbreak of cholera.

The Commission add:—"We are quite prepared to hear an objection raised on the ground of the enormous expense of the execution of all these measures on a large scale; but our reply is, that *the expenditure of the very largest sum for the accomplishment of measures for the improvement of health is only to place out money at very large interest—national health is national wealth.*

5. As to the hygienic measures for arresting, as far as possible, the propagation of the disease in the interior of a country.

The following is the summary of these measures adopted by the Commission:—A judicious organization of public relief; general preventive visitation, or at least medical visitation at the houses invaded; immediate attendance on those attacked; the publication of popular instructions; the encouragement which arises out of a confidence in the promptitude and extent of the relief afforded; and the publication of the true state of the epidemic; in addition to these, the establishment of special hospitals and of temporary houses of refuge for the reception of the families of poor patients. Each of these points is dwelt upon in the Report. The Commission insist upon the importance of domiciliary visitation being carried out *daily* and conscientiously, regarding it as truly a *preventive* measure. They insist strongly upon the danger which attaches to the emanations from excrementitious matters, and consider that in cholera seasons it would not even be unreasonable to prohibit the use of common privies, and to render the disinfection of all excrementitious matters absolutely obligatory. They express themselves with equal force upon the subject of perfect frankness being observed by authorities in making known to the full the danger of the population, on the ground of the confidence it would establish and the tendency of the public mind to exaggerate unknown perils; and they think this may very safely be done when conjoined with the reassurance derived from the adoption of rational means of prevention and relief. With regard to hospital accommodation, they express an opinion, in which all sanitary medical officers will, we think, coincide, that every large town should be provided with a *permanent special hospital*, situated outside its limits, for the reception of the earliest cases of any epidemic disease, such as cholera; and as there are sure to be cases which it would not be prudent to transport to a distance, or which require very prompt attention, that there should, in cholera seasons, be also improvised houses of reception in open places within the town itself. They do not regard it desirable that cholera patients should be received into general hospitals, but when this becomes a necessity they consider that the wards into which such are admitted should be quite separate from the rest of the building. They say also that the carriages for the conveyance of cholera patients should be used for this purpose exclusively. They also lay down rules for the management of all that concerns the cholera evacuations, the soiled linen, bedding, &c., and the nurses; and dwell in a most benevolent spirit upon the care which should be taken of the families of those attacked.

Taking into consideration the transmissibility of the disease, they further recommend the temporary interruption of communication with infected localities, which, provided it can be made absolute, is the

surest preservative against the transmission of cholera. The timely displacement and methodical dissemination of movable aggregations of people (such as caravans, bodies of troops, &c.) are, they say, most efficacious means of preventing the outbreak of cholera amongst them, as well as of checking its extension and lessening its violence. Emigration well timed, and dissemination well regulated, may give the same good results with fixed aggregations of people (as in localities, public establishments, &c.).

6. As to hygienic measures calculated to prevent the formation or promote the extinction of foci of infection, by destroying in the air, or in contaminated objects, the germs of the malady.

This is what we mean by the term *disinfection*, respecting which Dr. Muhlig, the reporter of this part of the proceedings of the Conference, has prepared a special report, which appears in the form of an appendix. It is so important, that we shall give the latter an extended notice.

After some preliminary remarks upon the subject of disinfectants in general, the object held in view, and the results obtained hitherto by disinfection in cholera, Dr. Muhlig proceeds to discuss—The various means of disinfection applicable to cholera. First of all he mentions *free exposure to the air*, the length of time that any object must be exposed depending on its physical qualities, and the readiness with which air can penetrate it, or the tenacity with which morbid germs adhere to it. He regards eight days or so sufficient for the purpose of purification under the worst circumstances, but whenever it is possible other means of disinfection should be conjoined—indeed, in many cases, the exposure of contaminated objects may be dangerous. *Exposure to heat* is regarded as one of the best modes of destroying morbid germs in general, but in the case of cholera the heat must be raised to the extent of destroying organic matter; this amounts, then, to *combustion*, if we intend the heating to be of undoubted efficacy. *Immersion in water* constantly renewed can only be used at the certain risk of contaminating the water itself. *Chemical procedures*.—Under this head, Dr. Muhlig discusses the relative value of chlorine and chloride of lime or soda, quicklime, the mineral acids, coal tar and carbolic acid, Condyl, and the salts of iron and zinc. He thinks that the efficacy of chlorine has been exaggerated, that experience has shown that its value is very limited, and that there is not a single conclusive fact to prove that it has any power to prevent the propagation of any one contagious disease. Chloride of lime, so far as the disengagement of chlorine is concerned, is necessarily still weaker than the chlorine used alone, and Dr. Muhlig thinks that whatever disinfectant power it possesses is attributable to the lime which forms its basis. He regards *quicklime* as a highly useful disinfectant, since, besides its chemical action upon organic matters, it fixes and solidifies them at the same time that it also thus prevents the disengagement of emanations; it absorbs water and

watery vapors from the atmosphere, with all that is suspended in them, without liquefaction itself, and also evolves much heat in the process. Its great inconvenience is that it promotes the disengagement of ammonia, and generally merely retards, in place of completely preventing the process of putrefaction. The only value the writer attaches to *charcoal powder* and *dry mould* is that which arises from their power of absorbing gases. *Peat* he regards, from its power of absorbing ammoniacal matters, as the best disinfectant of urine. The *mineral acids* Dr. Muhlig looks upon as disinfectants only in the sense of their being antiseptics. Nitric acid vapors and nitrous fumes he regards as having only partially justified the confidence which has been reposed in them as anti-contagious agents, and he thinks that the same remark applies to sulphurous acid. *Carbolic acid*, with which he classes coal tar, appears not to have received so much consideration from Dr. Muhlig as might have been expected from the estimation in which it is held in this country, or as it deserved, in our opinion, after the elaborate report upon it put forth by Mr. Crookes. The objection he raises to *permanganate of potash* is its price; still he regards it as a most useful agent in purifying water from organic matters. Among all the chemical disinfectants, M. Muhlig gives the palm, on the whole, to *sulphate of iron*, so far as destroying the infection of cholera is concerned, its cheapness being also very much in its favor. *Chloride of zinc* he regards as undoubtedly superior, the only obstacle to its general employment being its price. We are sorry to confess ourselves somewhat disappointed with this part of Dr. Muhlig's report. We think that a sanitary international conference should have put forth something upon this most important subject that would carry more weight than the string of opinions enunciated by Dr. Muhlig. It contrasts very unfavorably with the admirable report on disinfectants issued by Dr. Angus Smith and Mr. Crookes under the auspices of our own Cattle Plague Commission.

Dr. Muhlig passes on to consider the practical application of the several means of disinfection before referred to in the management of cholera. 1. *As to the disinfection of cholera dejections.* Regarding these as containing the germ of the disease, he insists upon the necessity of submitting them to the operation of chemical agents from the very moment of their discharge. The agent which he prefers is the chloride of zinc, or in default of this the sulphate of iron, or they may be covered immediately on their discharge with quicklime in sufficient quantity to solidify them, or else carbolic acid or coal tar may be used. He gives a warning (very necessary for us in London, who are governed (?) by a number of disconnected local boards) against the absurdity of using a variety of chemical agents at the same time, some of which can only serve to neutralize the operation of the rest. 2. *As to the disinfection of privies and drains,* he considers that much will depend upon the system of sewerage in

use. He thinks that the system of movable troughs (*fosses mobiles*) alone permits of a thorough plan of disinfection being carried into effect. Into these he would introduce, while empty, chloride of zinc, sulphate of iron, or coal tar. Under other circumstances he would treat the privies with a dose of the same disinfectants from time to time, using powdered charcoal also as a supplementary measure, to prevent the disengagement of putrid evacuations. Where a system of channelling is in use (as in London) he would prefer—on account of the vast system of sewers and their free intercommunication—to throw into the privies charcoal and quicklime, but he admits that in this case coal tar may “perhaps be an useful agent.” At any rate, we are using carbolic acid very generally in our city, and it has, we believe, the full confidence of the majority of the Metropolitan Medical Officers of Health. One admirable suggestion of Dr. Muhlig is, that the disinfection of privies and drains should be adopted, not only when cholera has broken out, but as soon as its outbreak is even threatened. 3. *For the disinfection of drinking water*, he prefers filtration through charcoal and the use of permanganate of potash. 4. *As to the disinfection of houses*. Dr. Muhlig recommends, first, free aëration, not only by opening all the windows, but by establishing currents of hot air by means of braziers; next, that the floors, &c., should be sprinkled and washed with a solution of chloride of lime or carbolic acid; after this, that sulphur should be burned, so that the fumes should reach all the corners and crannies. He recommends that this process should be extended over several days, and that finally the walls should be limewashed, and the floors, &c., freely washed with water. Eight days he regards as the shortest period over which the process of disinfection should be made to extend. 5. *As to the disinfection of goods, clothing and merchandize*. Linen articles, &c., before handing over to the laundress, should be disinfected as quickly possible with chloride of lime or soda, and after washing should be freely exposed to the air until absolutely dry, and in order to insure purification the articles should be boiled. The experience of the Imperial Marine Hospital at Constantinople is in favor of this method. Dr. Budd uses chloride of zinc in a similar manner. But it is clear that some articles in common use by cholera patients cannot, from their nature or thickness, be thus treated when contaminated—such articles must be burned. Of this nature are beds, mattresses. At least, if not burned, they should be exposed to a high degree of heat, as recommended by the late Dr. Henry, of Manchester, and subsequently freely exposed to the air. 6. *As to the disinfection of ships*. This Dr. Muhlig confesses to be a most difficult affair. It must, however, be based upon similar principles to those on which the disinfection of ships is based when they are contaminated with yellow fever. The measures to be adopted should be more or less rigorous, according to the intensity of the focus as manifested on board, the lapse of time since the departure from an infect-

ed port, and the degree of healthiness of the port. M. Muhlig, in his report, gives minute instructions upon this subject, which it is unnecessary that we should transcribe, but which we recommend to the study of all who are, or are likely to be, concerned with the prevention of disease at seaports.

There is another appendix to the Report of the Commission, which it is well that we should notice, inasmuch as it indicates the main points which the proposed "Manual of Naval Hygiene" should embrace. Following a natural order, it is suggested that it should first treat of the hygiene of ships anchored in an infected port; the preservative means would then be such as related to the anchorage, the care that should be taken in regard to the receptacles of excrementitious matters, the avoidance of the use of river water where vessels are at anchor, especially for drinking purposes, and the careful watch that should be held over the health of the crew. Next it should treat of sanitary police as respects departure, the wholesome condition, and the capacity of the vessel; the sanitary condition of those embarking, the quality of the provisions taken in, of the clothing, and other things in general use by those coming on board; the quality of the merchandize shipped, the separation of the things in personal use by passengers and crew from the articles of merchandise, and the carrying of a medical man. After this it should give directions as to sanitary police as relates to the passage, pointing out the measures which should be adopted for preventing the invasion of cholera, and then those which should be adopted in the event of cholera breaking out on board. Under the former head the Commission include a rigorous superintendence of the sanitary condition of the passengers and crew, a constant good ventilation of the whole ship, and especially of the cabins; frequent exposure to the air of the things in common use by the passengers and crew, and the careful washing and disinfection of the necessaries. Under the latter head the Commission would insist upon the separation of the sick from the healthy, the adoption of measures for immediate disinfection of discharges, &c.; the prohibition of use by any persons suffering from diarrhoea of the necessaries used commonly by the passengers, and the keeping of a journal of all cases of disease occurring during the passage. Lastly, they would point out the leading circumstances which should guide a commander in his determination of continuing the voyage or of returning into port.—*London Medical Times and Gazette*.

A CIRCULAR has been issued of the Medical Department of Willamette University, located at Salem, Oregon. It has a full corps of eight professors. There are now two medical colleges on the Pacific coast—one at San Francisco, California, and one at Salem, Oregon. At the former (the Toland Medical College) the annual commencement was held Oct. 2d, 1866, and the degree of Doctor of Medicine was conferred on ten graduates.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

Oct. 8th.—*Pneumonia without Expectoration*.—Dr. ABBOT reported the case.

The patient entered the Massachusetts General Hospital August 27th, and the following is an abstract of the record :—

W. C., æt. 24, laborer. Had always enjoyed good health until January last, when he had an attack of pneumonia, lasting four weeks. On recovering, he had been at work until the 17th of August, when the present attack commenced with sharp pain in the left side, followed by chills and fever. Since that time had been at home, although not wholly confined to his bed. At the time of entrance he complained only of pain in the left hypochondrium and lumbar region, which prevented decubitus on the right side.

28th.—Patient up and dressed. Sleep disturbed by dyspnoea. Pulse 132, small and weak, probably excited. Considerable cough, without expectoration. Percussion gave good resonance throughout right front, and there was normal respiration. Percussion slightly resonant and on a very high key beneath the left clavicle. Respiration very feeble and distinct throughout left front, and of a rumbling character. Moderate crackle heard beneath clavicle after cough. Bronchophony at third rib, and increased vocal resonance throughout left front. Percussion dull throughout left back, and flat in lower third; considerable crepitus mixed with coarse mucous rales, heard above spine of scapula after cough, and slightly as low down as angle of scapula. Respiration more audible than in front, becoming fainter towards base, and scarcely audible in lower third. Alteration of voice in back not so marked as in front. Nothing abnormal in right back, or in sounds of heart. Impulse of heart strongest at a point two inches to the right of sternum. No marked change of level of dullness when the patient is in a recumbent position.

Examination of urine gave sp. gravity 1021; reaction acid; no albumen; chlorides nearly absent.

An anodyne expectorant pill was directed to be taken at bedtime, and the patient was put on a diet of beef-tea and gruel, with bread, and a pint of wine whey daily.

Sept. 3d.—Respiration heard distinctly throughout the left back, although feeble in lowest third. Rales very much less towards summit, but heard occasionally towards base. Diet somewhat more nourishing, with the substitution of two ounces of sherry at noon and night for the wine whey.

The condition of the patient improved steadily, and on the 12th decubitus was reported easy on either side. The condition of the urine was about the same, except that the chlorides were somewhat increased in quantity.

Oct. 1st.—Auscultation gave dullness over lower left back much less, with respiration heard as before, but more clearly at the base. A very marked friction sound was now heard, extending from the base

as high as the middle of the scapula. On the 8th, no abnormal physical signs could be detected in either chest.

The chief points of interest in this case were, the want of fever, the comfortable condition of the patient, and *the entire absence of expectoration throughout*. He remained up and dressed every day, and took no medicine except the pill above mentioned, which was omitted at the end of a fortnight, a saline laxative occasionally to relieve constipation, and tr. ferri muriat., ℞xx., which he took during the last three weeks after each meal. During his whole continuance in the hospital not a particle of expectoration was raised, and the cough, which was very slight, and ceased several weeks before his discharge, seemed to be merely irritative.

Nov. 12th.—*Tapeworm voided after taking Kousso, preceded by Cerebral Symptoms*.—Dr. LYMAN reported the case.

G. F., æt. 19. One year ago voided a tapeworm. Was told by his physician that the head was with it, but the specimen I have here was without either head or neck. His principal symptom then was an inordinate appetite. He took at that time a preparation of male fern, the effect of which was very severe and painful.

On the 28th of September, 1866, he applied to me, complaining of general malaise, constipation, loss of appetite and constant headache, from all of which he had been suffering for a fortnight. I found, also, slight febrile action. These symptoms continued, with little amelioration, for a week or more, when I ascertained from one of his friends that before seeing me his mind had been in an anomalous condition, and that he had wandered off to Newburyport, and on his return could not remember where he had been. This fact, combined with the constipation, loss of appetite and persistent headache, gave to the case a more serious aspect. More active cathartics, and a large blister to the back of the neck were resorted to, and in a few days great relief was experienced. The headache nearly disappeared, the appetite returned, and he felt so much relieved that he considered himself nearly, if not quite well. During all this period no suspicion was entertained of a tapeworm. At the expiration of a fortnight, he appeared again, with four terminal joints or proglottides of a tapeworm, which he had just passed. After twelve hours fasting, gave half an ounce of kousso. This caused one liquid operation in three hours, but no worm. In three hours more a second half ounce was given, which caused a second discharge with no result, and in another hour a third evacuation, expelling the worm, eight feet in length, entire and unbroken.

The medicine caused no nausea or inconvenience, excepting that the last operation was quite painful.

The case is reported with some detail, as it is an interesting question whether the cerebral symptoms which existed nearly two months before and ceased a fortnight previous to the expulsion of the worm, were due to its presence or to other causes.

I find in Weinland's monograph on Human Cestoides, a table of 100 cases quoted, of which 68 were "accompanied by cerebral or cerebro-spinal affections, which may extend to maniacal attacks and mental weakness," and 19 had periodical or habitual headache. If the corresponding symptoms in this case were due to the presence of the

worm, it is singular that they should have ceased so completely a fortnight previous to its expulsion.

Nov. 26th.—*Ancylostomum Duodenale*, Dubini.—Dr. WHITE showed the specimens.

A nematoid worm, discovered by Dubini, in Milan, in the human duodenum and jejunum in 1838, and afterwards in Egypt by Bilharz and Griesinger. Allied to *strongylus*, and described by V. Siebold as *S. quadridentatus*. Length of male 3-4", female 4-5". At the anterior extremity is the mouth, consisting of an oblique, horny, capsular disc, directed backwards, which contains four strong recurved teeth, with which the animal fixes itself firmly to the mucous membrane of the duodenum and jejunum. The females are much more numerous than the males. A peculiar and grave form of anæmia had long prevailed in Egypt, which affected one fourth of the population, and was called Egyptian chlorosis, or cachexia Africana, but its nature and cause remained unknown till 1852, when Griesinger, in his travels, made a *post-mortem* examination of one of these fatal cases at Cairo, and found these parts of the intestinal canal filled with fresh blood, and thousands of these little worms attached to the mucous membrane and filled with blood. The appearances produced by these little animals are numerous ecchymoses on the mucous membrane of the size of a millet-seed, in the centre of which is a minute white spot pierced by a deep hole. It is from this little wound that the blood escapes, and from this loss of blood follow the symptoms, which vary in intensity according to the number of worms present. They consist of general pallor, palpitation, slow and feeble pulse, and fatigue on slight exertion, with occasional signs of disturbance in the digestive organs. Afterwards, and in severer cases, emaciation, œdema, a yellow or greenish skin, and all the symptoms of a grave anæmia. The *post-mortem* appearances are those presented in cases of chronic hæmorrhage.

We have no knowledge of the occurrence of this entozoon in this country until within a year. A form of anæmia, with symptoms similar to those above given, has been known in Brazil for a long time, and described by travellers as anæmia tropicalis. No one suspected its true nature until last year, when Dr. Wucherer, of Bahia, discovered three worms in the jejunum, and verified this discovery by another case in May of this year, and from this patient the accompanying specimens were obtained. They were given to Mr. Scève by Dr. Walbaum, of Bahia, who thus describes the symptoms of the disease as there observed:—"gray discoloration of the skin, great weakness and anxiety, palpitation and perceptible pulsation in the epigastric region, partial blindness, at times yellow coloring of the conjunctivæ, emaciation, thirst, inability to walk, œdema of the face and extremities, colliquative diarrhœa, collapse, death."

Nov. 26th.—Dr. J. WYMAN exhibited the cranium of a young subject, showing elongation of the head co-existing with obliteration of the sagittal suture. The immaturity of the skull is indicated by the fact that the cavity for the wisdom tooth is quite small and deeply buried in the jaw, and of the crown of the first premolar being still contained in the alveolus.

Length of the head,	7.3 inches.
Height,	5 "

Breadth, 5 inches.
 Length of sagittal space, 5·3 "

The ordinary length of this last is about 4·5 inches.

The appearances of the cranium correspond with those observed by Virchow, Lucä and J. Barnard Davis in certain elongated skulls, in which the early obliteration of the sagittal suture prevents the lateral expansion of the head, and therefore tends to an increase of the length of the skull, to accommodate the enlarging cerebral mass.

The cranium exhibited, and another, but adult specimen, presenting the same appearances, belong to the collection of the late Dr. Gaspard Spurzheim, in the Anatomical Museum at Cambridge.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 20, 1866.

MEDICAL EVIDENCE.

THE contradictory character of the testimony given by medical witnesses upon the stand is notorious, and there probably never was a case in which both defendant and plaintiff, or State and prisoner, were not able to obtain from medical men just such evidence as they required for the interests of their respective sides. This is a fact as well understood by lawyers as it is deplored by the profession thus made use of; one, moreover, which lowers the character of the physician in the community and brings our art into disrepute as an inexact science. It is so well understood, in fact, by the shrewd advocate, that where nothing to the positive advantage of his client is to be gained from the medical witness, he employs him to weaken the character of the scientific testimony offered upon the other side, by obtaining from him the expression of opinions apparently contradictory upon questions which seem to be, but in reality are not, connected with the case, but which have a tendency to confuse both court and jury, who can never properly discriminate in evidence of this nature.

For this unsatisfactory and often disgraceful status of the medical witness, the profession has itself alone to blame. How often have scientific men allowed personal enmity or rivalry to change them into partizans upon the stand, and to give testimony in which the truth is entirely suppressed on the one side and carried to the verge of wilful exaggeration on the other, so that it has only to be known that Dr. A. is for the plaintiff to ensure the attendance of Dr. X. for the defendant. How often do men allow themselves to be used as experts and to express opinions upon points of grave importance, for which they have not qualified themselves either by practical training or special study. How often do physicians use language so loosely and appreciate the indecision of their own judgment so little, as to permit a keen-witted lawyer to twist their statements into a mass of self-contradictions. How often, too, do those who deplore just this state of things inadvertently answer the questions of counsel in such a way as to mislead non-professional hearers as to the just conclusions to be

drawn from them, either by assenting to the correctness of supposititious cases, which the jury cannot see have no connection with the case on trial, or by using terms capable of a double meaning without carefully defining their exact reference to the case before the court.

A capital trial has recently been held here in which some of these points have been illustrated in a striking manner. The mother of an illegitimate child accused her own mother of killing it by laudanum. The defence was based on the supposition that the child died from the effects of hereditary syphilis. The evidence was as follows:—The child was born at the female hospital in Pleasant St., in a healthy state, weighing $6\frac{1}{4}$ pounds. According to the statement of attendant and nurse it had ophthalmia, which was nearly cured at the end of ten days, when it left the institution in a vigorous and otherwise healthy condition. It was not seen again by any professional person until after its death at the age of one month, and the doctor who was then called in to give a certificate of burial reported that it was emaciated. It was stated that the mother also at the time of birth had some scars which suggested a former syphilitic condition, and the physician who attended her while pregnant in the almshouse at New Bedford testified that she then had secondary syphilis. These, we believe, were the only reliable facts in the case, although all sorts of contradictory statements were made by witnesses on both sides. Yet upon this basis, that an infant born healthy of a mother previously syphilitic has ophthalmia at birth, and is found after death, after probable starvation and possible poisoning, emaciated, the court felt authorized in its remarks to the jury to express the opinion that the child probably died of hereditary syphilis. This opinion was undoubtedly founded on the testimony given by the physicians called by the defence, to the effect that the children of syphilitic mothers are generally syphilitic, that children thus diseased generally die, and that among the symptoms of hereditary syphilis are *sore eyes* and wasting away.

The data being a mother syphilitic during pregnancy, an infant healthy at birth with an ophthalmia nearly cured in ten days, and emaciation after death twenty days afterwards, was syphilis the cause of death? As they appear to us, the facts warrant no such conclusion whatever, not even that a symptom of the disease had manifested itself. We do not propose to discuss here the signs of hereditary syphilis, or the possibilities which might follow in the life of an infant born of a diseased mother. "What might have been" is not within the proper scope of scientific evidence in capital cases. If the medical gentlemen had been asked their opinions as to the cause of death in this case after hearing the testimony, they too undoubtedly would have answered that there was no positive proof that the child had exhibited any symptoms of the disease; and had they been asked what sort of sore eyes they considered symptomatic of hereditary syphilis, they would have said they did not mean the disease which this infant had; facts which would have undoubtedly been elicited had not the Attorney-General previously decided on other grounds to carry the case no further, and which would doubtless have materially modified the opinion of the Chief Justice as above expressed.

This case illustrates, as we have stated, some of the dangers which arise from medical evidence. No physician should be permitted to testify as an expert unless his qualifications are made known to court

and jury, nor should he be willing to express his opinions on the case unless he has heard the facts and fully understands how his remarks bear upon the case and their interpretation by his hearers. The medical expert should not be a witness for or against; he should consider himself as employed in an impartial capacity, as one holding the same judicial relation to the evidence coming within his province that the judge upon the bench bears to matters of law, and his opinions should be given with equal deliberation and comprehension.

SOLUTION OF CITRATE OF MAGNESIA.

EXPERIENCED pharmacutists have found it difficult to prepare a permanent solution of citrate of magnesia according to the authorized formula, and physicians have found the effects of the article to vary, owing, probably, to its variableness of composition.

At my suggestion, a druggist of this city has for some time past made the solution in the manner proposed by M. Genevoix, of Paris. The formula may be found in the *Journal de Médecine*, Bruxelles, September, 1864. Thus prepared, the solution has been found to keep much longer than the official article without decomposition, and is more satisfactory in its operative effects.

According to M. G., the prevention of precipitation is due to the addition of syrup of sugar to the citric acid (coarsely pulverized), the magnesia and the water, instead of combining it subsequently with the filtered solution. The proportion of ingredients is the same as in other formulæ. A quantity sufficient for six bottles is put into a large bottle and shaken for ten minutes. It is then allowed to stand several hours, or, if frequently shaken, may be filtered, as soon as it becomes clear, into the smaller bottles. The alkaline carbonate is then added, and the bottle is to be immediately corked and tied in the usual manner. If the syrup be added after filtration, or if sugar be substituted, M. G. affirms that the citrate of magnesia is speedily precipitated.

E.

Rochester, N. Y., December, 1866.

Prof. C. E. Brown-Séquard.—An evening reception was given by Prof. Edward H. Clarke last week at his residence, at which his guests, the physicians of our hospitals and educational institutions, the professors of the various departments of Harvard University, and other gentlemen not connected with our profession, had the pleasure of meeting Dr. Brown-Séquard. The lectures of this distinguished Professor at the Medical College are attended by a very large class of students and by many physicians of this city and vicinity.

MEDICAL INTELLIGENCE.

A NEW treatment for cancer has recently been proposed by Dr. Broadbent, of St. Mary's Hospital, London. It consists of the injection into the diseased tissue, by means of the hypodermic syringe, of a solution of acetic acid in water, to arrest its growth or to produce absorption by the well-known solvent action of this substance on the tissues. This acid was chosen in preference to other chemical agents

possessing the same property on account of its not coagulating albumen and thus diffusing itself through the mass to be acted on. He injects twenty or thirty minims of the solution, varying in strength from one part to one or four or five of water, into the centre of the tumor, which causes, according to his statement, less pain and burning than when thrown into healthy tissue. Cases are cited where the size of the tumor has diminished after such treatment, and the method has been tried at the Massachusetts General Hospital. It is too early yet to speak of the final results of these experiments.

The Queen has granted a pension to Dr. Hassall, of London, for his public and scientific services, who according to the *Lancet* is in need of such assistance. Dr. Hassall is the author of several valuable works, one of which, that on Adulteration of Food, is widely known in this country.

M. Husson stated recently at the Imperial Academy of Medicine, that formerly five children might be counted for each marriage in France; at the commencement of the century that number fell to four, and now each marriage hardly produces three children in the country, and two in Paris.

M. Natalis Guillot, Professor of Clinical Medicine at the Paris Faculty, recently died at Nice. This is the seventh or eighth vacancy made in that body by death or resignation within a few months.

The announcement, by Atlantic telegraph, of the death of Prof. Trousseau, in Paris, is probably an error, as *L'Union Médicale* of Nov. 27th states that a similar statement had been spread abroad in Paris, but that the distinguished Professor was only slightly indisposed.

WE have given considerable space this week to an abstract from the report of a Commission of the International Sanitary Conference on hygienic measures advisable to be adopted for preservation against Asiatic cholera. Our own abstract from a report by another Commission of the same body was so favorably received, that we feel no apology is needed for occupying so large a space with so important a subject.

Treatment of Subjective Sensations in the Ear, by Dr. A. POLITZER, in Vienna.—The therapeutics of the subjective symptoms in diseases of the ear, which accompany the affections of the cavity of the tympanum, have, as is well known, the best results by means of the injection of air through the Eustachian catheter: still, these injections often have no effect. In some cases they even increase the trouble. In general, the removal of tinnitus aurium is more frequently accomplished where it is intermittent in character. In the cases where it is constant, the effect of the air bath is exceedingly various, so that we can never say in advance if in a given case a favorable result will be obtained. At any rate, too protracted a treatment by injection of air, or of medicated fluids, may act injuriously. It is best not to protract the treatment more than from three to five weeks, beginning again after quite a pause. Of the narcotics which have been used to remove the "noises in the ears," none have been found to have a certain effect. These have been used in the form of vapors (chloroform, ether) blown

into the cavity of the tympanum, ointments of ol. hyoseyam., chloroform, tinct. belladonnæ, acet. morph., tinct. opii, rubbed in the region of the ear. Tinct. belladonnæ, tinct. myrrhæ, have been dropped into the external auditory canal. Sometimes dropping in of lukewarm water, or water and glycerine, have relieved severe tinnitus. There are yet no accurate accounts as to the effect of subcutaneous injections behind the ear. In some cases of Politzer's there was a transient effect. Vesicants seem to avail nothing, except in recent cases, with no evident objective changes. No effect has been seen from internal remedies. Quinine has some effect in intermittent attack of tinnitus, with, however, temporary decrease of hearing power. In cases occurring in patients with constitutional syphilis, iodide of potassium relieves the deafness and noise. B. Shulz has seen a favorable effect from the use of the galvanic current.—*Wien Med. Wochenschrift, Leipzig Zeitschrift für Medicine, etc., from Medical Record.*

The Zoological Section of the French Academy.—The place recently vacant by the death of M. Dufour was given to M. Van Beneden, the Belgian *savant*, to whom we owe so much of our knowledge of the development of tapeworm. The post was well contested; the names in alphabetical order in the second line being the following:—Filippi, Turin; Huxley, London; Leuckart, Giessen; Pictet, Geneva; Sars, Christiania; Siebold, Munich; Steenstrup, Copenhagen; and Voget, Geneva.—*London Lancet.*

Mixed Vapors.—Two cases of death from mixed vapors of ether and chloroform are referred to in the *Observer* newspaper. Hitherto it was believed that the mixed vapors were harmless.—*Medical Press and Circular.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 15th, 1866.
DEATHS.

	Males.	Females.	Total.
Deaths during the week	29	42	71
Ave. mortality of corresponding weeks for ten years, 1855—1865	34.5	38.1	73.6
Average corrected to increased population	00	00	79.95
Death of persons above 90	0	0	0

BOOKS RECEIVED.—The Common Nature of Epidemics. By Southwood Smith, M.D. Philadelphia; J. B. Lippincott & Co.—Reports of Brevet Brigadier General D. C. McCallum, Director and General Manager of the Military Railroads of the United States, and the Provost Marshal General. In two Parts. (From J. H. Baxter, Surg. and Bvt. Col. U.S.A.)

DIED,—In East Boston, Dec. 15th, J. J. Fales, M.D., 69.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 15th, 71. Males, 29—Females, 42. Accident, 5—apoplexy, 2—congestion of the brain, 3—disease of the brain, 2—bronchitis, 2—burns, 1—consumption, 15—convulsions, 2—croup, 4—debility, 1—diphtheria, 1—dropsy, 3—dropsy of the brain, 1—scarlet fever, 3—typhoid fever, 1—disease of the heart, 2—infantile disease, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 5—marasmus, 1—measles, 1—old age, 1—paralysis, 1—puerperal disease, 2—premature birth, 1—ulcers, 1—unknown, 5.

Under 5 years of age, 25—between 5 and 20 years, 11—between 20 and 40 years, 17—between 40 and 60 years, 9—above 60 years, 9. Born in the United States, 51—Ireland, 11—other places, 6.

THE

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No. 22.

A CASE OF COMPOUND FRACTURE OF THE FEMUR TREATED
WITHOUT SPLINTS.

[Read, and the patient exhibited, to the Norfolk (Mass.) District Medical Society, November 14th, 1866, by
SILAS E. STONE, M.D., of Walpole.]

A BOY, C. P., aged 14 years, while playing at the railroad station, fell across the track as a car was being backed up by the engine. The train, going at slow speed, stopped just as the first wheel of the car struck the thigh, not having passed over it, and there remained until the car was pushed off. He was taken home, and seen by my father and myself within half an hour.

On examination, the left thigh was found to be very much injured, the soft tissues crushed, and the femur fractured at the junction of the upper and middle thirds of the shaft. Communicating with the fracture was an opening through the skin, on the inner aspect of the thigh, of sufficient size to admit the little finger, through which was some oozing of blood, but no great hæmorrhage. There was no pulsation discoverable below the injury. The foot and leg were cool. The patient's countenance was pinched and anxious, though he did not complain, except when disturbed by the examination. Shock to general system not very severe, considering the extent of the injury. Fearing, from the absence of pulsations in the posterior tibial and dorsalis pedis arteries, that the femoral had been injured, it was determined to wait till reaction had taken place before deciding how to proceed.

The next morning Dr. Monroe, of Medway, saw the case with my father and myself. The limb was found to have recovered its warmth, and the circulation was restored. A free incision was made, enlarging the previous opening, and the bone examined. There proved to be an oblique fracture, the fragments very sharp, but without comminution. The points of bone were removed by bone-cutters, the limb laid on pillows, and ice applied.

In addition to the injury described, the right foot was injured, and four of the metatarsal bones were comminuted. During the treatment of the foot nothing occurred worthy of note. Ice and ice-

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water were applied for the first few days and gradually dropped, when nothing except the support of a pillow was used.

About ten days from receipt of injury, great pain was complained of about the lower part of thigh and knee, and a large abscess formed, which discharged through previous opening.

From Dec. 27th till Jan. 24th, the limb was gently supported, with no extension worthy the name. At that time the wounds were granulating well, and had ceased to discharge sloughs, and the suppuration had diminished. On January 24th, a five-pound flat iron was hung over the foot-board of the bed, being attached to the leg the usual way, by adhesive straps and a bandage. An attempt was made to use perinæum-straps for counter-extension, but they created so much irritation that they were abandoned, and the foot of the bed was raised, so as to make use of the weight of the body for counter-extension. In a few days the weight was increased to seven pounds, and at the end of the week to twelve pounds, which was maintained till the 17th of February, when I noted the following:—

Taking off extension, I find the bone about an inch shortened. The leg is straight, and promises to be useful; the ulcer resulting from the incision, about the size of a silver half-dollar.

From this time he steadily improved, and is now able to walk, run and jump as well as most other boys of his age, and has no perceptible limp or trouble in walking.

HYDROSTATIC ATOMIZER, OR "EXSUFFLATOR."

[Read before the Norfolk (Mass.) District Medical Society, November 14th, 1866, by G. J. ARNOLD, M.D., of Roxbury.]

SINCE fluids were first atomized for local anæsthesia, various more or less perfect methods have been adopted for the purpose. The more common apparatus consists of India-rubber bulbs, so arranged that while one acts as a bellows the other is designed by its elasticity to keep up a constant and equable pressure. Although excellent in theory, practically it frequently disappoints; for besides other defects, it requires an assistant, and it is almost impossible for one person to keep up an uniform current for more than one or two moments, on account of the extreme fatigue to the muscles of the hand in working it. Steam has been used, but of course is not always available, and has its obvious disadvantages. The hand air or force pump has been employed, but this also necessitates an assistant, even for the slightest operation. To obviate these and other defects, hydrostatic pressure* has been resorted to, and apparently with most satisfactory results.

* Suggested by Mr. C. H. Hudson, of Roxbury, with whose co-operation the apparatus described in this paper was, after considerable experimentation, finally adopted.

The apparatus consists of two closed cylindrical vessels (Nos. 1 and 2), each capable of holding one or more gallons of water. On the side of each, close to the bottom, is a short tube (a and a'), with an aperture not exceeding five eighths of an inch in diameter. At the top of each is a stop-cock (c and c') of one eighth of an inch delivery. These apertures may be varied in size, according to the size of the vessels. The stop-cocks being closed, vessel No. 1 is filled with water. The two vessels are then connected by a flexible tube ($a-a'$), the larger aperture of the one with the larger aperture of the other. The atomizer (b) is connected by means of a small flexible tube with the stop-cock (c') of the empty or air-vessel, No. 2. Elevate the vessel of water (No. 1) and open both cocks; the water will of course displace the air in vessel No. 2, and force it through the atomizer. Sufficient pressure is secured by an elevation of ten feet, and the height of an ordinary room answers very well. When the air has been entirely displaced in vessel No. 2, change the atomizer tube from No. 2 to No. 1, reverse the position of the vessels, and the fountain will be renewed without the escape of a drop of water. The principle here involved is familiar to all.



In houses supplied with aqueduct water, the water-tube of the apparatus ($a-a'$) may be connected with a hydrant, and thus one of the vessels be dispensed with—the air-vessel only being retained.

All the effects of rhigolene, or concentrated ether, are secured by this apparatus. With rhigolene, the thermometer has been reduced from 72° above to 10° below zero, Fahrenheit, in ten seconds.

The following are some of its advantages:—

1. By it a continuous, uniform and equable current can be obtained at any time.
2. Two or more atomizers can be employed at the same time. This is important where it is desirable to operate on a large surface at once.
3. In an office, the whole apparatus can be constantly ready for use at the shortest notice.
4. The current can be graduated to a nicety with regard to force, and be continued as long as required.
5. It obviates the necessity of skilled assistants, without imposing upon the surgeon the distracting labor of manipulating the apparatus when his attention is required in the more important processes of an operation.

ON THE PRACTICAL USES OF THE LARYNGOSCOPE AND RHINOSCOPE IN DIAGNOSIS.

By EPHRAIM CUTTER, M.D., BOSTON.

[Read before the Maine State Medical Society at Portland, June, 1866, and communicated for the Boston Medical and Surgical Journal.—Concluded from page 378.]

HAVING thus given an account of my own normal posterior nares, the pathological diagnosis of rhinoscopy may be best illustrated by a few cases from my note-book.

CASE XIX.—April 28th, 1866. Miss C. A. B., 18 years of age. Complains of catarrh. Thinks it congenital. Has lost the sense of smell for most substances, save camphor and cologne at times. Breath of nostrils exceedingly offensive sometimes, at others less so. Cannot remember when she was free from the disagreeable odor. Has droppings from the posterior nares; discharges frequent, thick, viscid, and green colored. Pain over both eyebrows and at the top of head. Eyesight sometimes affected, and the tears run over the cheek. The rhinoscope revealed a golden-colored deposit covering the turbinated bones of both sides. At subsequent examinations it appeared green, completely investing the bones in question. Anterior rhinoscopy revealed the existence of the same colored deposit. There was a stenosis and asymmetry on the right side, the middle turbinated bone being elongated and bent so as to be quite parallel to the vomer; so blockading the passage that catheterization of the right Eustachian orifice by the ordinary process would be impossible.

CASE XX.—May 1st, 1866. Mr. W. A. A., of Chicago, Ill., 26 years of age, has had trouble with his nose for seven years, consisting of an unusual flow of mucus and constant snuffling, enough to be troublesome. Exposure to cold air or water usually starts the secretion. No offensive odor.

Rhinoscopy.—Eustachian orifices normal. A slight ulceration on the upper and inner faces of the vomer, indicated by a roughness and ground glass appearance. Anteriorly, the mucous membrane was found reddened and tender.

CASE XXI.—Feb. 16th, 1866. Miss T., 18 years of age. Complaint is of ozæna, with extremely fetid discharges of muco-purulent and greenish-yellow existing for a long time.

Posterior Rhinoscopy.—Orifices of both Eustachian tubes normal. Middle and lower thirds of the left side of vomer covered with a rough, gold-yellow covered deposit. Same deposit on the left turbinated bones, and at the dome of the post-pharyngo-nasal space.

CASE XXII.—January 25th, 1866. B. S. had polypus removed from the left nostril in December, 1865. Complains as if there were more left behind. Deaf on the right side. Air passes with difficulty through the right nostril.

Posterior Rhinoscopy.—Orifice of the right Eustachian tube partly

closed. A glistening, diaphanous, ovoid body occupied the right upper nasal tract, completely blocking it up. Probably another polypus.

CASE XXIII.—January 23d, 1866. Mr. E. B. Complains of catarrh and deafness in right ear.

Physical Appearances, by Rhinoscopy.—Anterior view, nothing abnormal. Posterior view, vomer normal. The mucous membrane covering the turbinated bones abnormally pale, ashy white, exsanguine and swollen. The mucous membrane covering the right superior turbinated bone is œdematous and glistening, appearing like a mucous polypus. The mucous membrane about the right Eustachian tube is swollen, covering the anterior portion, so that only one third of its calibre is open. The left Eustachian orifice is normal.

CASE XXIV.—January 19th, 1866. Mr. S. M. B., Boston, furrier, 40 years of age; a feeble man. Never felt well in his nose. Always had the catarrh.

Pharyngoscopy.—Uvula thickened, enlarged, hard to the feel, reddened at the base, which redness is prolonged up into the soft palate.

Posterior Rhinoscopy.—The upper post-pharyngo-nasal space is smaller than usual, encroached upon by thickening of the mucous membrane, which on both sides covers the orifices of the Eustachian tubes two thirds of their diameter. The vomer is natural, and so are the turbinated bones, but the nares are smaller than usual—one third smaller than my own. In this case, a swelling or turgescence of the mucous membrane covering the turbinated bones, which ordinarily occurs and would not be noticed, becomes abnormal by mechanically closing the too small passages. Beyond what has been indicated, there is no solution of continuity, no abnormal growth, no malformation.

CASE XXV.—November, 1865. Patient of Prof. S. D. Gross, of Philadelphia, at his office; a young man, complaining of total stoppage of right nostril. Posterior rhinoscopy revealed a globular, wrinkled, whitish-yellow growth, occluding the whole posterior nasal opening on the right side.

CASE XXVI.—A young man, fresh from the war, who had long had difficulty with his nose and throat, said that his military regimen had cured his throat, but not his nose. His complaint was of a stoppage of the passage of air through the nostrils, which did not exist all the time, but which came particularly on exposure to the vicissitudes of the weather. On examination of the posterior nares they were found abnormally small—certainly one third smaller than my own. The mucous membrane presented no abnormal feature, except that it obstructed the passage, because, that while the nasal openings were small, the turbinated bones were of the normal size. This disparity produced effects similar to those of the last case, viz., that when the mucous membrane took on a natural turgescence, in-

duced by some condition of the atmosphere (and which I have shown by auto-rhinoscropy is a natural condition), this swelling of erectile tissue blockades the passage.

This conclusion was further sustained by a therapeutical diagnosis; for, by the administration, by Thudichum's method, of astringent solutions, the trouble was almost entirely obviated for a time.

CASE XXVII.—A young man, 17 years of age, complained of what he called catarrh, referring to symptoms of occlusion, indicated by thickness of speech, inability to breathe through the nostrils, having to swallow his food quick, as if the food were forced down by the breath. Has total deafness on the right side, partial deafness on the left. When he lies on the left side he is totally deaf. Smelling deficient; efficient only after unusual inspiratory efforts. Cannot breathe through the nose. Makes a great noise when he sleeps. Chest pigeon-breasted; slightly wavy inspiration over the right and left upper third front.

Inspection of Throat.—Both tonsils enlarged—right more than left. Enlarged follicles on post-pharyngeal wall. Epiglottis, vocal cords and arytenoids normal.

Rhinoscropy.—A cauliflower, pale-red growth was revealed, filling up the whole posterior nares and obliterating the natural appearance of the parts. On palpation with the right forefinger, a firm, large, cartilagious body was felt, filling up the post-pharyngo-nasal space, and apparently continuous with the upper part of the soft palate. It bled on palpation.

Diagnosis afterwards confirmed by repeated examinations.

CASE XXVIII.—A young man, clerk in a country drug store, 18 years of age, has for six or seven years had what he termed a "catarrh difficulty," namely, the dropping down into the back part of the mouth of a viscid, greenish-yellow, exceedingly unpleasant and offensive matter; sometimes it affects his voice.

Posterior rhinoscopic examination showed a large ulceration on the post-pharyngeal wall, directly behind the soft palate, occupying one half of its surface, and extending upwards to the dome. The following physical appearances were called ulceration:—A thick deposit of greenish-yellow, viscid matter, which, washed off, disclosed a base of a roughened, eroded, whitish aspect. The vomer and turbinated bones were normal, with this physiological difference from my own, namely, that the middle turbinated bones were in the form of elongated, scroll-like processes, that terminated in a club-shaped expansion, while that of my own is hemispheroidal.

In conclusion, the writer would append the following programme of his physiological demonstrations:—

I. By *auto-rhinoscropy*, the vomer, turbinated bones, Eustachian orifices, Rosenmüller's fossæ and the post-pharyngo-nasal wall, with the effects of insufflation of aromatic substances.

II. By *auto-laryngoscropy*, the parts of the pharynx, larynx and

trachea in passivity and in action. Also during either of the following physiological states :—

(a) Phonation of vowel sounds.

(b) Respiration.

(c) Crying.

(d) Cackinnation.

(e) Cantation, including—

(1) The movements of the vocal cords in singing the diatonic and chromatic scales.

(2) Falsetto voice.

(3) The movements in trilling.

(4) The physiological movements in singing, *throughout*, tenor of the Messiah, or the air "In Native Worth," from the oratorio of solos, viz., the recitative "Comfort ye my People," from the oratorio of the Creation.

III. Photographs of the living epiglottis *in situ naturali*, and of the living vocal cords *in situ naturali*, may be had of the artist, Mr. Frank W. Hardy, A.B., Bangor, Me., at a moderate price—\$1.00 for the set.

DR. VALERJ'S INTRODUCTORY LECTURE.

(Concluded from page 406.)

BUT though matters thus stand, that is, medicine and the office of the physician being reduced to these general terms (namely, the former to the art of helping nature, the latter to the minister of the aid), I would not have you imagine that it is easy to practise art at the sick bed. It is most arduous, my dear young friends, soon to be my distinguished colleagues, and the cure of patients undertaken in the sense, and within the limits above specified, is often a work of the greatest difficulty! I would hazard the assertion that our history contains few physicians who were able to succeed easily in this matter. Ah! how often have we been embarrassed in making out whether that state of vigor or of languor in which nature appears to us, be absolute or ephemeral, if that tumult or disorder of her motions be transient or permanent, deserving, therefore, to be, or not to be appeased and reduced to order, with the when and how, &c. Most simple and clear is the classic aphorism of the Father of medicine, by which he reduces to three principal heads the action of medicine in aiding nature. "*Strengthen her*," he says, "*if she be too weak or slow; temper, moderate her, if too strong and violent; direct and calm her, if she be perturbed in her action: always, however, seconding her, never striving against.*" But in its simplicity, what great practical tact and difficulty does not this doctrine contain! And what discrimination, what consummate experience are required to determine clearly those very numerous cases in which the healing powers being

sufficient of themselves, render all intervention useless, nay hurtful! Nor do we encounter less embarrassment in applying such a great number of medicines: even a nurse, a pharmacist's lad, can tell us that such a substance causes vomiting, another induces sleep, promotes perspiration, expectoration, &c. &c.; but sometimes quite different is the effect of them on such an individual, for it is a difficult matter, even for an expert practitioner, to determine the choice of the remedy and the time it should be administered, and to assure himself with certainty that such shall be the effect produced; "*Est enim hæc ars conjecturalis*," writes Celsus, "*neque respondet ei plerumque conjectura, sed etiam experientia. Et interdum non febris, non cibus, non somnus, non purgatio, &c. &c. Subsequitur, sicut assuevit.*" I will but mention to you the obscurity which the diagnosis of various maladies presents, the *occasio præceps* of coming to nature's aid in various others, the idiosyncrasies of the patients, &c., and numerous other obstacles; all which increase the difficulty of our ministry, and render it in point of fact, when we consider the shortness of life, too difficult and extensive to be known thoroughly. "*Ars longa, vita brevis.*"

But I should fear that I had not fully exhausted the subject of this inaugural lecture to clinical practice, were I not to state what you must have known already, namely, that the principles which I have expounded as lucidly and regularly as my weak ability would permit, are identical with those which constitute the doctrine of Hippocrates. This celebrated physician, *medicorum Romulus, cui nec ætas prisca vidit parem in re medica nec videbit futura*, was the first who based medicine on the unshakable foundation of the healing power of nature. Endowed with a genius born for this art, with an ability and mind the most exquisite that ever any man possessed for observation, it was not long before he perceived, from following the natural course of diseases, that nature is their genuine and efficacious curer, and pronounced the ever memorable and classic words, "*Natura morbis medetur.*" Astonished, too, by the surprising order and means wherewith she operates towards that end, he adds, "*Natura ipsa sibi per se, non ex consilio motiones ad actiones obeundas invenit, a nullo quidem edocta, extraque disciplinam ea quæ conveniunt efficit.*" But notwithstanding such high praise, he did not make of her a reasonable and intelligent being, but recognized her to be a necessary force, subject to the wondrous laws which the All-wise Maker of the universe imposed upon every created being specially; hence the organism, says he, knows not, sees not what is doing, knows not what wills, acts by divine necessity, and its operations tend towards the object predetermined. "*Corpora, quæ faciunt non sciunt, quæ vero faciunt scire sibi videntur, et quæ vident non cognosunt; attamen omnia in ipsis fiunt per divinam necessitatem et quæ volunt, et quæ non volunt; unum quodque destinatum fatum explent.*" The body and each of its parts fulfil this destiny, being so intimately connected that one cannot be said more

properly to be the beginning than another, while they form a real economy where everything conspires and concurs towards the common weal. "*Corporis nullum est principium, sed omnes partes acque principium et finis; confluxio una, conspiratio una, consentientia omnia.*" Hippocrates, ever an acute observer, and schooled by positive experience, perceived that nature does not always suffice of herself, but that medicine discovers and possesses certain aids capable of stimulating her in discharging whatever is hurtful and morbose, as likewise to force her to manifest to the physician what she stands in need of and what she requires of him. "*Quando natura non sponte excernenda dimittit, medicina necessitates, ac vires invenit, quibus natura coacta indemnitas dimittat, sive excernat, nam stimulata monstrat medentibus, quae sint facienda.*" And not to lengthen our discourse with other passages, with which this Romulus of physicians has called this art into existence, and that too quite on a sudden (with a privilege denied by Providence to the other arts and sciences, which, formed by degrees, were gradually developed and perfected), all in a moment rendered it most conspicuous and useful, ever inquiring and scrutinizing, with impartial vision, and mind intent on clearly seeing, conceiving and judging of the course and phenomena of diseases, observed the rapid or gradual crises with which they terminate, the days on which they are more likely to occur, whether as harbingers of health or death, expounded the doctrine of these crises, and of the critical days, augmenting it with a treatise on Semeiotics as practical as is requisite for the prognosis and cure of diseases; he described a great number of maladies with matchless precision, deducing therefrom a most valuable collection of practical aphorisms; and after all this, as a consequence of so many observations and studies, concluded, with a practical knowledge which never can be too highly admired, that the medical art consists definitely of these three things—the *disease*, the *nature* or strength of the patient, and the *physician*; the physician is the minister of this art; on him it devolves to direct against the malady the powers of the patient and his own. "*Artem tria ista circumberibunt, morbus aeger et medicus, qui artis est administer, aegrumque oportet una cum morbo reluctari.*"

I have thus explained to you what medicine is, as I intend teaching it you at the patient's bed, and may God grant that, for their happiness and yours, I may succeed in this very arduous task. Henry Cope wrote to Prince Lionel, that he would never have wished to be a physician save by following the doctrine of Hippocrates: "*Nollem esse medicus nisi hippocraticus.*" Such should be the resolution of us all, being sure, in doing so, to follow that doctrine which, during the long period of more than twenty-four centuries, when forgotten or neglected, eclipsed the science and caused the art to be pernicious rather than beneficial to patients, whilst, when attended and followed, was and will always be their safeguard and the true light which illumines the physician in the mysterious labyrinth

of life, and our diseased organism. Do not fancy that the medicine of Hippocrates is ancient and circumscribed; on the contrary, it is ever recent like truth, which never grows old, and so comprehensive as to embrace every progress that must daily and necessarily enlarge our knowledge. If Hippocrates, as was natural, could not perceive everything, he has ably taught others to *see all and see clearly*. His doctrine is as a pyramid which, with the result of our studies and discoveries, we may build higher and still more high, on condition, however, of not touching the smallest stone of its foundation, for otherwise all would fall to ruin, and our medical system would become nothing more (as history proves) than an unwieldy mass of conjectures, an application of erroneous maxims, fatal to diseased humanity.

I am fully convinced, that by practising now-a-days this art according to the dictates of Hippocrates, dictates which, as they were lawfully deduced from the observation of a great genius, have been followed and consecrated by the experience of the best physicians of every age and country, you will not succeed in contenting all your patients, nor in winning the gratitude and esteem of a considerable number among them. And what of that? Shall we desert the truth in such an important matter as the curing of diseases, to embrace the error of this or that system, which best suits the genius of the multitude, or the taste of the age? Let us ever remember, as a moral balm in the afflictions to which our sound method of curing might expose us, that our masters, even Hippocrates, Galenus, Sydenham, and so many other noted practitioners, had also to suffer on this score. A proof of this may be found in several biographical anecdotes and utterances of lamentation, to be met in their works. "*Ce n'est pas la médecine, mais le medecin, qui fait le succès à la cour!*" exclaims one subtle historian, alluding to the incapacity of a court-physician of his time; and Zimmerman, in his valuable treatise on "Experience in Medicine," relates, that in a large city where there was a host of physicians, the most stupid among them was the most highly esteemed, so much so that fifty or sixty patients presented themselves to him every morning; but that after having examined them all, he was wont to arrange them in four classes, to the first of which he prescribed a purge, to the second bloodletting, to the third a clyster, to the fourth a change of air. Now we too shall witness similar facts, and must bear the same painful consequences; for now and then it happens, that a new and strange system of medicine is introduced and practised, and the most recent destroys the preceding, and becomes more glorified. Really, a few years ago, all diseases were cured, or rather ill-treated, by excessive purging and bloodletting; now-a-days people are endeavoring to do the same by means of hydrotherapy, homœopathy, and by systematically abstaining from any bleeding in genuine inflammation of the lungs. But you, in the meantime, will say, that these errors triumph; that Priessnitz,

Hahnemann, &c., have still their followers, and these latter their patients. Ah! let not that surprise, and much less entice you to follow any other path than that which I have proved to be the most conformable with experience, the most beneficial, nay, exclusively so, to humanity. The "green ass," in the fable of Gellert,* will always have a great number of followers; and if to-day, at this very hour, Cicero proceeded to the piazza of St. Peter's to deliver one of his renowned orations, and Cagliostro to the "Piazza del Popolo" to display his impostures, you would see that Cicero would be honored with but a small audience and chary applause, Cagliostro by a concourse of people frantically bent on admiring him. And what, gentlemen, is the true reason of all this? Here it is for you, in two words. The *five senses* are common to all, *good sense* the privilege only of a few; for which reason the great orator would have been understood and applauded but by a small number, the celebrated impostor by a large multitude.

Solaced, therefore, by this truth, though hard it be, let us undertake, with alacrity, the study of this most difficult art, and approaching patients, let us ever bear in mind, that following in the steps of Hippocrates, we are not here, properly speaking, to cure them, but to aid their respective natures in doing so. "*Medicus curat, natura sanat.*"

ON THE MUTUAL ACTION OF THE ELEMENTS OF SOLUBLE SALTS WITHOUT AND WITHIN THE ANIMAL ECONOMY.

By M. MEISENS.

THE experiments already made by the author, he considers, justify him in formulating the following proposition:—

Two soluble salts which are without apparent mutual action, and which may be given separately to animals without producing any disturbance in the body, may, when administered together, act as a poison:—

The two salts more especially experimented with by the author are, chlorate of potash and iodide of potassium. These two salts in solution together crystallize separately under whatever conditions they may be placed. Their mixture in solution in equivalent proportions undergoes no mutual decomposition either at the ordinary temperature, on boiling, or under the pressure of ten atmospheres at 185° C. It can be proved by means of sulphydric acid that no iodate of potash is formed.

But when the two salts are heated together in the dry state, decomposition takes place at the point of fusion, and iodate of potash is formed.

* A person more knave than fool painted an ass all green except the legs, which he colored red. Indescribable was the astonishment of the people who flocked in crowds to behold the portentous animal.

When a certain quantity of mineral acid is added to a mixed solution of the two salts, iodine is set at liberty, and the solution behaves towards sulphydric acid as though iodic acid had been produced.

When the mixed solutions are submitted to electrolysis, hydrogen is disengaged at the positive pole, and the liquor appears to contain both iodide and iodate.*

We come next to the effects of the before-mentioned salts on animals. Seven grains of chlorate of potash were given to a bitch weighing eleven kilos. every day for a month; the animal did not at all suffer. Afterwards, five grammes of iodide of potassium were given daily for the same period. The animal suffered a little during the first days, but at the end of the month was perfectly well.

If, on the contrary, we administer to a dog daily seven grammes of a mixture of iodide of potassium and chlorate of potash in equivalent proportions, the animal languishes and dies about the twenty-fifth or twenty-eighth day. On commencing the experiment one dog weighed 16.5 kilos.; at the moment of its death it weighed only 11.5 kilos. The experiment repeated on several dogs gave similar results. Death often supervened about the fifth day.

Post-mortem examinations revealed changes similar to those observed by the author when iodate of potash was administered, especially in the liver and intestines, but it is necessary to make a series of comparative experiments with the iodate, free iodine, and mixtures of the two salts.

The author has shown, in previous memoirs, that the iodate of potash acts as a poison. This salt, given in doses of one or two grammes daily, will kill a small dog in a few days. A mixture of the two salts cannot be so active as the iodate, since both unchanged iodide and chlorate may be found in the urine. The author is therefore brought to the conclusion that the mutual action of the two salts in the economy takes place with the greatest facility. It may be supposed that the acids of the stomach and the electrolytic actions which take place in the organism play an important part in bringing about this decomposition. But beyond all hypothesis it is necessary to admit that changes take place in the animal system which cannot be realized in the laboratory under ordinary conditions, or with the assistance of a high temperature, strong acids, or even the electric current.—*Lond. Chem. News*, August 17, 1866, from *Bulletin de la Soc. Chim. de Paris*, July, 1866. Abstract from the *Bull. de l'Acad. Royale de Belgique*, 1866, in *American Journal of Pharmacy*.

* To avoid the action of chlorine, iodine, and oxygen, the author employed retort coke as the positive electrode. The carbon was previously treated with aqua regia, and then ignited in a current of chlorine. The carbon employed in the above experiment was disaggregated, and in part burnt to carbonic oxide and acid, and at the same time a soluble black carbonaceous matter was obtained, similar to the ulmic product which the author obtained by the action of chlorine on the carbon contained in the lungs in *melanosis*.

Bibliographical Notices.

A Treatise on the Practice of Medicine. By GEORGE B. WOOD, M.D., LL.D., President of the College of Physicians of Philadelphia; Emeritus Professor of the Theory and Practice of Medicine in the University of Pennsylvania; one of the Authors of the Dispensatory of the United States of America, &c. Sixth Edition. In two Volumes. Pp. 1984. Philadelphia: J. B. Lippincott & Co. 1866.

EIGHT years have passed since the appearance of the fifth edition of this well-known and highly-valued work, a period within which many and great advances have been made in medicine, so that the year spent by the author exclusively in bringing this treatise up to the present state of science was none too long for such a task. Some of the introductory chapters on general pathology have been modified, in accordance with the views of modern observers, descriptions of a large number of new affections have been introduced in their proper connection, and much new matter relating to special diseases has been inserted in the form of foot-notes. Altogether, two hundred pages have been added to the present edition. The work is too well known and too highly prized throughout the country to need any praise from us. It is a pity, however, that so good a book should appear in so poor a form, for both paper and print are bad.

A Handy-book of Ophthalmic Surgery for the Use of Practitioners. By JOHN Z. LAURENCE, F.R.C.S., Surgeon to the Ophthalmic Hospital, Editor of the Ophthalmic Review, &c. &c., and ROBERT C. MOON, House Surgeon to the Ophthalmic Hospital. With numerous Illustrations. Pp. 191. Philadelphia: Henry C. Lea. 1866.

WE noticed this book at some length but a short time ago, on its appearance in England. The American Edition is an excellent reproduction, and deserves the same favorable notice we gave the former.

A Manual of Medical Jurisprudence. By ALFRED SWAIN TAYLOR, M.D., F.R.S., Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Sixth American from the Eighth and Revised London Edition, with Notes and References to American Decisions. By CLEMENT B. PENROSE, of the Philadelphia Bar. Pp. 766. Philadelphia: Henry C. Lea. 1866.

THE present edition of this valuable manual is a great improvement on those which have preceded it. Some admirable instruction on the subject of evidence and the duties and responsibilities of medical witnesses has been added by the distinguished author, and some fifty cuts, illustrating chiefly the crystalline forms and microscopic structure of substances used as poisons, inserted. The American Editor has also introduced several chapters from Dr. Taylor's larger work, "The Principles and Practice of Medical Jurisprudence," relating to trichiniasis, sexual formation, insanity as affecting civil responsibility, suicidal mania, and life insurance, &c., which add considerably to its value. Besides this, he has introduced numerous references to cases which have occurred in this country, enclosed in brackets. It makes thus

by far the best guide book in this department of medicine for students and the general practitioner in our language, although of course not containing much of important detail which is to be found in his large work above mentioned, and in his treatise on Poisons. It is published in a very handsome and correct form.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 27, 1866.

SPECIALTIES—ADDRESS OF THE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION.

THE President of the American Medical Association, in his opening address at the last meeting, a copy of which is now before us, presents in his usual energetic manner a statement of his feelings and opinions on the important question of specialties in the practice of medicine. To those gentlemen who have the privilege of intimate relations with him it was pretty well known before that he entertained very positive opinions upon this question, and some may have got the impression that he held rather an extreme position on the side of those opposed to their utility or wisdom. We gather from his address that the chief objections in his mind are rather against *specialists* than *specialties*, rather against the course which some practitioners have adopted who have proposed thus to limit their practice than to the simple circumstance that they have so restricted themselves.

In reading the strong language of sarcasm and contempt with which the President has portrayed the littleness and chicanery of some, who professing thus to limit themselves have made their professions an entering wedge for gaining a hold on patients which they have not hesitated to avail themselves of for extending their sphere of practice to other branches—in his denunciation of the arrogant assumption of superior knowledge by some—his ridicule of the narrow-mindedness of others—the reader cannot but feel that he speaks from personal experience; and every honorable physician must respond most heartily to the sentiments which he utters. But such, it is to be regretted, are not unknown offences among those who do *not* class themselves among so-called specialists. It needs not many years experience in our profession to learn that insinuation or direct claim of superior knowledge or skill, bigotry and one-sidedness of opinion, and cunning management to secure favor, are crying sins by no means unknown the world over, wherever selfishness takes the lead of higher motives in the pursuit of our noble calling.

Passing on from his denunciation of specialists as they sometimes unworthily deport themselves, we find the President presenting fairly the grounds on which special practice is based, and giving his testimony to the great value of such exclusive devotion to certain branches. Physiological researches, ophthalmology, dentistry, obstetrics are instance as affording illustrations of the good results from such exclusive study. The truth is, this tendency to specialism grows out of

the very necessity of the case. *Non omnia possumus omnes*. As the world grows older, and men grow wiser, they appreciate the more the smallness of their attainments and grow more humble; more ready to see that some of their fellows may be better able by natural gifts or superior opportunities to settle the questions that confound them, and more willing to turn to them for counsel. Common consent, in every community large enough to give a school of experience, singles out certain men as authorities in certain departments of medical practice, without any special profession on their part of particular attention to those departments. It is but a step in advance of this for certain of our brethren to devote themselves from the start to such departments; thus gaining the opportunity of investigation and study which shall specially fit them to be authorities in them. Who can doubt that the opportunities thus brought within the experience of a few must lead to a vastly more valuable result than if scattered among the profession at large!

We cannot conclude these hasty remarks better than by quoting the closing words of Dr. Storer's address, which show that he fully appreciates the force of these considerations, notwithstanding the personal sense which he may have had of the abuses which may sometimes grow out of an unworthy application of them:—

"We would not, then," he says, "discountenance the specialist, as such; we would not speak disparagingly of him; we would neither ridicule nor condemn him; but would cheerfully welcome as a co-laborer to our ranks every well-educated, honorable, honest physician, to whatever portion of our science he may devote his time and his talents. Every atom he can add to our stock of knowledge, every grain he can place upon the mound already raised, shall be appreciated and rejoiced in; and as long as his conduct shall prove him worthy of our esteem, so long may he claim and possess it."

MEDICAL EVIDENCE.

MESSRS. EDITORS.—Will you permit me to make some remarks upon the article in your last number entitled "Medical Evidence." As one of the witnesses called for the defence in the case referred to, I feel that injustice has been done us. We were not asked concerning the probable cause of death. The questions were essentially these:—

1st. Would a child born of a woman who had secondary syphilis during her pregnancy probably inherit the disease?

2d. How would it manifest itself in the child?

3d. Is disease of the eyes, or "sore eyes," one of the marks of inherited syphilis?

4th. Do such children frequently die at a very early period?

5th. What amount of laudanum would be fatal to a child one month old?

The answers to all these questions were such as every member of our profession must have given. The counsel for the prosecution did not cross-examine. If he had done so with reference to the third question, it would have appeared that ophthalmia is a common affection of new-born children. I cannot help adding that the remark in the JOURNAL of last week, that "there probably never was a case in which both defendant and plaintiff were not able to obtain from medi-

cal men just such evidence as they required for the interests of their respective sides," is, to say the very least of it, most uncomplimentary to our profession, and unproved in the case referred to, and I must also say that to imply that the medical gentlemen who were called upon to testify for the defence were not qualified to give opinions upon the questions above noted, is a matter of personal judgment too sweeping to be indorsed by the Medical Journal of Boston. X.

We are sorry that our esteemed correspondent should have thus misapplied our meaning in the article in question. The answers to the questions referred to were undoubtedly correct, and such as every physician would have given so far as they went; but although based on general premises, they were asked with reference to the particular case, and the answers were made without any such reference: and these, as we stated before, the jury could not see had no necessary connection with the case on trial, and this disconnection, as our correspondent states, they would have seen, at least in one instance, had the replies been made to the other party. With regard to our introductory remark as to the contradictory character of medical testimony, we also agree with him in considering it uncomplimentary to the profession as a whole, but think that all who have had much experience in medico-legal cases will acknowledge its correctness. As to its connection with the case in question there is none, nor was any ever implied; an inference as unfounded as that which follows with regard to our remark upon the qualification of witnesses. If the writer will read our article again he will see that no injustice was intended towards the distinguished physicians called by the defence, and if he will read a full account of the trial he will learn that medical testimony was given by two persons not members of the Massachusetts Medical Society.

BOSTON, CHRISTMAS EVE, 1866.

MESSRS. EDITORS,—Will you afford me a brief space in your JOURNAL, that I may express my regret at having published in the New York *Medical Record* anything which my friends tell me was calculated to injure Dr. Calvin Ellis, one whom I regarded as a neighbor and a friend, and whom I would not have injured or insulted intentionally. I wish to make all amends in my power, and to persevere in efforts to do so. Without referring to scientific opinions and convictions, I would thus publicly say that I regret having so expressed myself as to injure or cause pain or annoyance to one towards whom I should be sorry to entertain any other feelings than those of kindness and respect.

HORATIO R. STORER.

We comply with the request made by the writer of this letter, and are glad to learn that the reiterated disclaimer by Dr. Storer of any intention to annoy or injure has been accepted by Dr. Ellis.

MESSRS. EDITORS,—Chordée, perhaps the most painful complication of gonorrhœa, is explained by the majority of writers as a simple result of the lack of elasticity in the inflamed urethral membrane. This is a much more plausible explanation than that of muscular spasm, and is supported by a fact which I have never seen mentioned,

but which first suggested itself to me in my own practice, and has been confirmed by further observation. It is this: that the less the difference in the size of the penis when in repose and when in erection, the less the danger of chordée. The fact is of value in prognosis, and, I have no doubt, has occurred to many others before me, but without getting into print.

W. F. MUNROE.

CHOLERA IN LONDON.

SOUTH LONDON, it will be recollected, was still supplied with impure water in 1854 by one company (the Southwark), and it suffered severely in the epidemic of that year. In the field of the other company (Lambeth), the mortality was much reduced, but was not inconsiderable. In 1866 South London was supplied with water by the two companies from the purer sources; the shallow wells were dried by the metropolitan drainage, and the deaths by cholera in all the districts, holding 873,548 people, were not so numerous as the deaths had been in 1854 in a single district. Thus you have these sequences, in the Lambeth field, impure water, 1849, cholera terribly fatal—pure water, 1854, cholera much less fatal; in the Southwark field, impure water in 1849 and in 1854, cholera terribly fatal in both years; in 1866, both fields with pipes interlaced, in South London, supplied with the purer water—mortality from cholera comparatively slight, but sufficient to remind us that the water is not yet perfectly pure.

Cholera had been epidemic in the continental cities since 1865, but London rested secure, expecting to escape with comparative impunity, when lo! in July, the weekly deaths by cholera sprang up from 6 to 14, to 32, to 346, to 904, to 1653, with an unexampled velocity, and threatened to renew all the horrors of the former plagues. The weekly returns showed that multitudes of men, women and children, spread over an area of about ten square miles, were indiscriminately struck down by diarrhœa or cholera.

In East London 3613 people perished in six weeks. The great destruction of life occurred in every district, supplied from the Old Ford reservoirs of one of the eight London companies, and to the same extent nowhere else. These reservoirs are close to the Lea, which is a tidal river, polluted with sewage of West Ham and of East London. In Manchester the water is immediately under the control of the Town Council, and you can know all about the supply; but in London that is not the case, as the water is supplied by private companies on strictly commercial principles. The directors are not bound to tell us precisely what their servants do, and they have not done so; but circumstantial evidence irresistibly shows that polluted water was distributed over all the area of extraordinary mortality during a certain number of days, with the same result as in previous epidemic years. The source of mischief was no sooner pointed out than the plague began rapidly to decline; it appeared to be under control, and the mortality by cholera in East London is now as low as it is in the rest of the metropolis.

When zymotic matter or any impurity is thrown daily into the mains, pipes, butts, houses, and, I may say, bodies of a population, it is irregularly distributed, and requires many successive daily changes to eliminate it; thus, when impure water is supplied for three days

only, it may take thirty days to eliminate it. This may be demonstrated mathematically, and be illustrated by experiment.

I may add that, although the distress from the loss of thousands of children and parents in an epidemic is never wiped away, yet in East London it has been mitigated; the people behaved with courage and patience; they helped each other in danger, and they were helped by enlightened English charity. The Queen herself came to their relief; Mrs. Gladstone, Miss Marsh, Miss Sellon, and Miss Louisa Twining, treading in the steps of Miss Nightingale, administered relief to the sufferers; the Bishops of London and the Lord Mayor upheld the honor of their high office by indefatigable services. The medical men, and, it is right to add, the clergy, nobly did their duty; the local authorities, to a greater extent than they ever did before, carried out the judicious recommendations of the Privy Council. House-to-house visitation was in many cases in use for a time.

By these means, by the exertions of engineers of the companies, and by the early discovery of the source of the terrific mortality in East London, the plague has been stayed; we know how Asiatic cholera can be subdued. In London twenty thousand lives have been saved. This is an achievement of the science of health which reflects some glory on England, and of which all the world will enjoy the advantage. It is due to many years of labor—to the labor of Jameson, Scott, Orton, Balfour, Martin, Parkes, in India; to Sutherland, Smith, Baly, Gull, Simon, and especially to Snow, in England; to the English registration of deaths, which enabled us to demonstrate by several experiments in the largest city of the world, the fatal effects of water tainted by impurities.—*Med. News and Library*, from a paper by Dr. FARR.

Portability and Communicability of Cholera.—We would call the attention of our readers to the following circular from Dr. William Marsden, of Quebec, relating to the Portability and Communicability of Cholera:—

To the Members of the Medical Profession on this Continent.

GENTLEMEN,—Having been unanimously elected delegate, for the third time, to the annual session of the American Medical Association, to be held in Cincinnati, Ohio, on the first Tuesday of May next, by the College of Physicians and Surgeons of Lower Canada, I beg to announce my intention to present a paper to the Association "*On the Infectious Character of Asiatic Cholera, its Portability and Communicability.*" With a desire to render it as full and complete as possible, I shall feel obliged to such members of the profession as may be pleased to furnish me with any facts sustaining these views, that may have come within their knowledge or under their observation, during the recent or any former visitation of the pestilence on this continent. Address, until the first of April next, "W. MARSDEN, M.D.,
Quebec, Canada East."

Will other medical journals please copy.—W. M.

Cause of Intermittent and Remittent Fevers.—We have received a copy of the *Weekly News and Southern Merchant*, Corinth, Miss., Aug. 4th, 1866, calling attention to an editorial notice that appeared in our

May number, of Dr. Salisbury's article on the "Alleged Discovery of the Cause of Intermittent and Remittent Fevers," published in the *American Journal of the Medical Sciences* for January last. The *News and Merchant* states that "the honor of this grand discovery should be awarded by the medical profession to our old friend and fellow-citizen, Dr. D. B. McFarlane, of this city" (Corinth); that "Dr. M. made this discovery four years ago, and immediately communicated the facts to Prof. Leidy, who engaged at once in the microscopical researches necessary, and is now making investigations for the purpose of bringing forward additional proof; as soon as they are completed, the whole subject will be brought before the medical world."—*Southern Journal of the Medical Sciences*.

Value of Arsenic in Hemorrhoids.—In the March number of this Journal we called the attention of the profession to this new application of arsenic.

We have just received from an intelligent medical friend, of long professional experience, the following note which confirms the statement made by us at that time.

Dear Doctor: Some eight weeks ago I had an attack of hemorrhoids, which so far incapacitated me for any physical exertion that the exercise of carrying the least burden, or even continuous walking for any length of time, would be the cause of great pain and external tumefaction. Having had, within the last twelve years, repeated attacks of the kind, which were only relieved by nature's dangerous method, *suppuration*, or by extensive local depletion by leeches or the lancet, I expected in this instance a like termination. About two weeks ago I concluded to try Fowler's solution, though I must confess with only the slightest degree of faith in its efficacy. I used ten drops of it three times a day. On the third day I felt partially relieved, and four days after was fully restored.

I know the import of the *post hoc propter hoc* fallacy in reasoning, have heard say that it takes more than one swallow to make a summer, and am as slow of belief in new remedies as any one, but I am fully persuaded that I have been relieved of this most troublesome disorder by the agency of the arsenical solution so timely brought to light in your valuable Journal. J. C. B.—*Cincinnati Journal of Medicine*.

A Useful Hint.—In Vienna the use of sulphate of iron as a deodorizer has had a most beneficial result. According to the *Presse*, the rats have been so effectually destroyed by the use of green vitriol, that recently Prof. Hyrtl was unable to procure a supply for experimental purposes. There is no better or cheaper substance known as a deodorizer, or, as some people call it, disinfectant; and if it results in the wholesale destruction of these pests, we would advise its use freely in our city drains.—*Canada Medical Journal*.

Mortality of First Labors.—Dr. Duncan, in the *Edinburgh Medical Journal*, declares, on the authority of statistics, that the mortality of first labors, and of puerperal fever following first labors, is about

twice the mortality attending all subsequent labors collectively; and that after the ninth labor the mortality increases with the number.—*Medical Record*.

Illegitimacy in England.—No less than 47,448 children were registered in England, in 1864, as born out of wedlock. Even this number does not represent the actual state of things. Owing to a defect in the English registration act, which does not make the registration of births compulsory, many cases are never recorded. Dr. Lankester has stated it as his deliberate judgment, that 16,000 women are living in London whose infant children have been murdered by their own hands.—*Ibid*.

THE number of medical students in attendance at the Medical Department of the University and the Jefferson Medical College is much less than last year, and seems to be owing, in a great measure, to the increase in the price of tickets, which has been adopted here and in New York, and some other cities.—*Philadelphia Correspondent of New York Record*.

The New Orleans Medical Record.—We regret to see that this journal, commenced, apparently, under such favorable auspices, has entirely failed, after the issue of three numbers. We believe this is the shortest term of existence ever awarded a journal originating in our city.—*Southern Journal of the Medical Sciences*.

DR. E. F. SMITH has been appointed as physician to the Marine Hospital at St. Louis. The Government has restored it to its legitimate object—the providing for the sick among the Western steamboat men; at present the wards contain forty-five patients.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 22d, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	34	49	83
Ave. mortality of corresponding weeks for ten years, 1855—1865	38.8	39.1	78.9
Average corrected to increased population	00	00	85.58
Death of persons above 90	0	0	0

PAMPHLETS RECEIVED.—Eleventh Annual Report of the Births, Marriages and Deaths in the City of Providence, R. I., for the year 1865. By Edwin M. Snow, M.D., Superintendent of Health and City Registrar.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 22d, 83. Males, 34—Females, 49. Disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cancer, 2—consumption, 15—convulsions, 1—croup, 6—cyanosis, 1—cystitis, 1—debility, 1—diarrhœa, 1—dysentery, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 1—disease of the heart, 7—infantile disease, 2—intemperance, 1—intussusception, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 4—measles, 2—old age, 4—premature birth, 3—puerperal disease, 1—smallpox, 3—trismus nascentium, 1—tumor, 1—unknown, 3.

Under 5 years of age, 38—between 5 and 20 years, 4—between 20 and 40 years, 15—between 40 and 60 years, 14—above 60 years, 12. Born in the United States, 58—Ireland, 17—other places, 8.

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No. 23.

INCREASE OF POPULATION IN MASSACHUSETTS.

By NATHAN ALLEN, M.D., of Lowell.

[Communicated for the Boston Medical and Surgical Journal.]

THE increase of population in any community is a question of very great interest. It involves important topics, such as the physical organization and condition of a people, their morals, their education, their civil institutions and future prospects.

There are two modes by which the population of a place or state may be increased:—1st, by an excess of births over deaths, or *natural increase*; and 2d, by the number emigrating into a place exceeding those removing out of it, or *increase by emigration*.

We propose here to examine briefly whether there has been an increase of population for a series of years in Massachusetts, and, if so, the character and extent of this increase.

The population of this State is reported by the United States census as follows:—In 1765, 222,563; in 1790, 378,787; in 1800, 422,845; in 1810, 472,040; in 1820, 523,287; in 1830, 610,408; in 1840, 737,700; in 1850, 994,514; and in 1860, 1,231,066. We here see that the increase for thirty years—from 1790 to 1820—was comparatively small, averaging 11 per cent.; that, from 1820 to 1830, the population increased over 16 per cent.; from 1830 to 1840, over 20 per cent.; from 1840 to 1850, 34 per cent.; and from 1850 to 1860, 24 per cent. During the first half of this period, large numbers emigrated from Massachusetts to other States, with scarce any return from these States, but during the latter half the population was increased not only by large numbers removing from other States into Massachusetts, but by the addition of a large foreign element.

It is alleged that the population of this State—particularly the American portion—has always been very much affected by removals to other States, to the West, to California, &c. In order to show how this matter stands, we here quote the results of two tables from the United States census of 1850 and of 1860. In 1850, there were residing in other States, natives of Massachusetts, 199,582; and in 1860, there were 241,039 such residents—an increase of 41,457

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during these ten years. But in 1850, there were residing in Massachusetts 134,830 persons natives of other States; and in 1860, 165,403 such residents: that is, in 1850, there were 64,752 natives of Massachusetts residing in other States more than there were natives of these States in Massachusetts; and in 1860, this excess was 75,632 persons.

From 1850 to 1860, there was, then, a gain of only 10,880 persons in other States, emigrants from Massachusetts, over and above residents of this State who were born in other States. This averages only about 1000 each year emigrating from Massachusetts, according to the census from 1850 to 1860. But some allowance should be made for filling the places of the deceased natives of Massachusetts in other States during the space of these ten years. According to the usual rates of mortality, from three to four thousand persons would probably supply this number. It appears, then, that the whole number emigrating from Massachusetts to other States did not exceed annually from 1850 to 1860, five thousand persons. It should be remarked that a large majority of this emigration is made up purely of American stock, but the exact line here between the American and foreign cannot be drawn. By the census of 1850, and 1860, the whole increase of population was 236,552, and, of those born in a foreign land, it was 95,666. But the proportion of the whole increase, made up of a foreign element, is much greater than this number. The census for 1850 reports as foreign born residing in Massachusetts, 164,448, and in 1860, 260,114 such persons; it also distinctly states that all the children of foreign parentage born in this State are considered in the Report as natives of Massachusetts, and are there reckoned in the American column. The first Registration Report of Births, Marriages and Deaths that made a discrimination in the births as to parentage was that of 1850, returning 8,197 of this class and 3,278 mixed or not stated. In 1850, the foreign births were only one half as many as the American, but they continued to gain upon the American every year, till in 1860, when they exceeded 15,000, and constituted almost a majority in the State. From 1850 to 1860, the whole number of foreign births reported was 137,146, besides 18,598 not stated, the larger portion of which undoubtedly was of foreign origin. Then the number of such births from 1830 to 1850, cannot be definitely stated, but, judging by the amount of foreign population at this period and its fruitfulness at other times, the number of births would certainly come up to 50,000, or more. Now what proportion of those of this character born from 1830 to 1850, might have been living in 1850 when the census was taken, and helped to make up the American column, or to aid in the increase of this class from 1850 to 1860; or what proportion of those foreign-born in the State from 1850 to 1860 were living in 1860, when that census was taken, and were reckoned under the American head, we cannot tell; all that can be determined

upon the subject, is only an approximation to the truth. After making allowance for the usual mortality, and considering that by far the largest proportion of these births occurred in the years immediately preceding 1860, we think it perfectly safe to say that there must have been considerably over 100,000 persons of this class included in the census of 1860 returned as Americans, being born in the State. If to the number derived from this source be added the increase from 1850 to 1860 of those reported by the census as actually born in a foreign land, viz., 95,666, it will certainly go far towards making up the whole increase (236,552) in the population of the State from 1850 to 1860. In other words, it appears that the actual increase of the purely American portion of the population during this period was at least comparatively small, certainly for each year. But there are other modes of testing this question. The Registration Report for 1850 gives the whole births in Massachusetts as 27,664—American, 16,189; foreign, 8,197; not stated, 3,278. In 1860, it reports the whole births as 36,051—American, 16,672; foreign, 16,138; mixed, 2,411; not stated, 830. The American portion from 1850 to 1860 scarcely varies five hundred in any year, except in 1851 and '52; and in 1860 it only exceeds that of 1850 by 183. But the births reported of foreign parentage, it will be seen—commencing in 1850 with 8,197—have more than doubled in these ten years. The year 1860 returns the highest number of births in the State ever reported.

From 1860 the number has diminished till 1865, when we find 30,249 reported—American, 13,276; foreign, 14,130; mixed, 2,416; and not stated, 437. Here, it seems, the foreign lead the American by 854. This diminution of births from 1860 to 1865 is undoubtedly occasioned by the effects of the war.

It has been alleged that the births are not all reported. This was undoubtedly the case in the earlier years of collecting the materials for the Registration Reports, but, of late, there is reason to believe that this defect does not prevail to the same extent. The United States census for 1860 reports under one year of age in Massachusetts 31,312 persons. The Registration Report of the same year, of the State, returns 36,051 births and 4,821 deaths under one year of age, which leaves living (31,230) only 82 less than the census. These separate results were obtained by two distinct agencies and modes of collecting statistics, entirely different, so that there could be no collusion or repetition. The census taken in 1850 and in 1855 does not afford the materials for verifying this matter for those years. But suppose the births are not fully reported from year to year, the defect or omission would be more likely to occur with the foreign than with the American births.

The increase of population in the State for twenty or thirty years has been confined principally to cities and towns where manufacturing, mechanical and commercial business is carried on. In the purely

agricultural districts there has been but little increase of population; and wherever this increase has taken place, it is found on examination to be made up largely of a foreign element, either from emigration or by the great number of births. It is a fact now pretty well established that the foreign class will have on an average about three times as many children as an equal number of the American.

On the other hand, if we take the counties or towns where there has been but little increase of population, we find that they are made up mostly of American stock. In fact, a careful analysis of the Census Reports at different periods, shows that this increase of population in the State follows almost invariably in the same line, and in the same proportion, as the foreign element has been introduced or increased.

But there is another mode of examining this question. How stands the number of deaths compared with the births? The Registration Report for 1864 gives 30,449 births and 28,723 deaths; for 1865, 30,249 births and 26,152 deaths; making only 1,726 births in 1864 more than the deaths, and 4,097 more in 1865. Now since the foreign population have two or three times as many children as the same number of married persons among the Americans—and having a majority of the births in the present case, and composing only about one third of the population of the State—is it not very evident that the strictly American deaths exceed the births? In examining the Registration Reports, it appears that the counties containing the least foreign population return, in 1864 and '65, more deaths than births. Take the towns containing none or scarce any foreign population, where in 1864 and '65 not a single birth is reported (there are over thirty such towns in the State), and the whole number of deaths in these towns for 1864 and '65, exceed each year the births. On the other hand, an examination of those cities and towns containing a large foreign element, shows that the whole number of births there invariably exceeds the deaths.

There is a difficulty in discriminating in the Registration Reports between the deaths of Americans and of foreigners, since the deaths of all those of foreign origin born in this country are understood to be returned as Americans. This mode of reporting the deaths is unfortunate where it is desirable to ascertain the *natural* increase of population in the two classes separately. Still, very correct knowledge upon this subject can be obtained in any city by a careful examination of the books of the undertakers, the Superintendent of Burials, and of the City Clerk, together with the places of burial. In the cities of Lowell and Lawrence, where there is a very large foreign element, we have obtained from these sources the exact number of deaths, foreign and American, for 1864 and '65, and the number of deaths in the former city over the births were rising one hundred each year, and in Lawrence, for the two years, they were over one hundred.

In a report upon the comparative view of the population of Boston in 1849 and '50, made to the city government, November, 1851, Dr. Jesse Chickering, after a most careful analysis of the births and deaths in Boston, states that "the most important fact derived from this view, is the result that the whole increase of population arising from the excess of births over deaths for these two years, has been among the foreign population." Since 1850, we think it will be very difficult to prove that there has been any *natural* increase of population in Boston with the strictly American portion.

It may be said the force of the statistics from the Registration Reports of 1864 and '65 is very much impaired by the war. The births may have been somewhat diminished, and the deaths increased by such means, but then the foreign element would have been affected as well as the American, since it was largely represented in the war. But a similar state of things in reference to the increase of the two classes existed for years before the war, and there is abundant evidence to prove that for a long time there has been a relative decrease of births with the Americans. In the Colonial census of 1765, taken one hundred years ago, when the population was purely American, the total inhabitants were then 222,563, and the number under sixteen years of age returned as 102,489—almost one half of the whole population. Now, it is estimated that only about one third of our population is under fifteen years of age. According to this estimate, a careful analysis of the natural proportion of the children to each class will show that scarcely one fifth of the Americans are at the present time under sixteen years of age. This makes a surprising difference in the relative number of children of the same people at the two periods—1765 and 1865.

Again, many towns in the State have been settled over two hundred years, and their history will include from six to eight generations. The records of several of these towns have been carefully examined with respect to the relative number of children in each generation. It was found that the families comprising the first generation had on an average between eight and ten children; the next three generations averaged between seven and eight to each family; the fifth generation about five, and the sixth less than three to each family. What a change as to the size of the families since those olden times! Then large families were common, now the exception; then it was rare to find married persons having only one, two or three children, now it is very common; then it was regarded a calamity for a married couple to have no children, now such calamities are found on every side of us—in fact, they are fashionable!

Two general remarks should here be made. 1st. That this decrease of children is found to prevail in country towns and rural districts almost to the same extent as in the cities, which is contrary to the general impression. 2d. From the bills of mortality of the present day it is an established fact that, on an average, only about

three fifths of all persons born, including the city and the country, ever live to reach adult life. It will be seen at once that with this rate of mortality, if the deaths exceed every year the births, or are only slightly less, the children will not keep the original stock good in point of numbers. In view of these facts, several questions naturally arise:—If the foreign population in Massachusetts continues to increase as it has, and the American portion remains stationary, or decreases, as the probabilities indicate, what will be the state of society here twenty-five, fifty, or a hundred years hence? How long will it be before the foreign portion will outnumber the American in our principal cities and towns, or constitute even a majority in the whole Commonwealth?

The cause why there should be such a difference in the number of children, between the American families now upon the stage and those of the same stock one, two and three generations ago, is a subject of grave inquiry. Again, why should there be such a difference in this respect between American families and those of the English, German, Scotch and Irish of the present day, and living, too, in our own State? Is this difference owing to our higher civilization or to a more artificial mode of life? Or can it be attributed to *a degeneracy in the physical condition and organization of females, or a settled determination with large numbers of the married to have no children or a very limited number?*

According to the late Registration Reports of England, the births exceed every year the deaths by more than one third, notwithstanding an emigration is going on much larger than what exists in Massachusetts, besides, too, large numbers of young men are being constantly drafted for the army; whereas in France the number of births has been approximating nearer and nearer to that of the deaths, so that the present population of that great nation is almost stationary.

Why should the strictly Americans of New England, descendants of the English, and similar in all the essential features of character, still rather resemble, in the matter of births, the French—a people so unlike the Americans in all their history, character and institutions?

Whatever difference of impression or opinion these questions may at first produce, a thorough discussion of the whole subject will probably lead every one to similar results. The members of the medical profession cannot fail to be interested in this matter. If this state of things has been brought about in any respect by the violation of the laws of life and health, is it not the solemn duty of this profession, as the guardians of these laws, to expose their violation, and vindicate, to woman as well as to man, the laws of Nature and of God?

EXSECTION OF THE SUPERIOR MAXILLARY BONE—PLASTIC DENTISTRY.

By F. I. CUMMINS, M.D., of New York.

[Communicated for the Boston Medical and Surgical Journal.]

A VERY interesting case in surgery and dentistry has recently come under the notice of both professions in this city. About the middle of last month a patient came to Dr. J. M. Carnochan, suffering from disease of the upper jaw, resultant on the unskilful extraction of defective teeth about eight years ago in Australia. Since that time, the patient, having been out of the reach of the best practitioners, had passed through all the stages of ulceration, sloughing and caries, until at the period of his coming to Dr. Carnochan his masticatory power had been entirely, and his speech nearly destroyed. Dr. Carnochan proceeded to exsection of the upper maxillary, and found the parts so far gone that he was obliged to remove the entire structure from the articulation with the lower jaw (leaving the articulation perfect) upon the right side, to within a distance of three molars from that upon the left. The destruction of the soft parts had created an aperture through the floor of the antrum by which the forefinger could be passed into the fossæ, and the perpendicular plate of the ethmoid was plainly visible. The case was then handed over by Dr. Carnochan to Dr. George H. Perine, of 22d St., a dentist, well known as former editor of the *New York Dental Journal*, as a skilful manipulator, and the discoverer of several very ingenious methods and appliances in dentistry. Dr. Perine undertook the difficult task of restoring the jaw, beginning by making, in the first instance, a hypothetical mould as near the contour of the cavity as was possible by the eye alone, and through successive castings and adjustments finally succeeding in adapting a vulcanite rubber base, which, with the artificial teeth attached to it, perfectly replaced the missing parts.

The aperture through the floor of the antrum greatly complicated the difficulties to be overcome, rendering the suction upon which the artificial maxilla depended for its retention *in situ* so defective, that it was absolutely necessary to close it before the adhesion of the vulcanite could be relied on. The preliminary castings as well as the permanent structure had to be carried up through the floor, and as the aperture necessarily increased upwards, the resistance to the removal of the cast unbroken was an obstacle which it required much ingenuity to overcome. Dr. Perine effected the removal by causing the patient to hold his breath, at the same time blowing into his nostrils with the full force of his own lungs, while an assistant steadily pulled at the cast below.

In seven weeks from the date of Dr. Carnochan's operation, the patient was wearing the artificial jaw and teeth (a permanent set, at least until further absorption renders some re-adjustment necessary) without pain or discomfort. The attachment was perfect, and the

power of mastication was entirely restored, as well as vocal articulation and the contour of the features. The most intimate friends of the patient, not previously informed of the substitution, met him constantly without a suspicion of the change which had occurred since he went to Australia. In view of all the facts, this case, which up to the present date (Nov. 30th) remains in *statu quo*, is one of the most remarkable combined triumphs of surgery and dentistry.

New York, November 30th, 1866.

Bibliographical Notices.

Eléments de Pathologie Interne et de Thérapeutique (Principles of Internal Pathology and Therapeutics). Par NIEMEYER, Professor de Pathologie de Tubingue. Translated into French by Drs. L. CULMANN and CH. SENDEL (of Forbach), with Notes by Dr. V. CORNIL, and an Introduction by Prof. BÉHIER. Volume Second. 8vo. Pp. 919. Paris. 1866.

[Read before the Norfolk (Mass.) District Medical Society, November 14th, 1866, by Z. B. ADAMS, M.D. of Roxbury, and communicated for the Boston Medical and Surgical Journal.]

THIS volume concludes the work of Niemeyer, and is of about the same dimensions as the first volume, an excellent review of which was read before this Society in January last, by Dr. Weld, of Jamaica Plain (see this JOURNAL, vol. lxxiv. p. 20).

As an elementary book, or manual, this work enjoys a high reputation in Germany, where it has already passed to a sixth edition in the course of four or five years.

"It will serve," says Prof. Béhier in his introduction, "to show us how our German neighbors, in treating of Internal Pathology, seek to avail themselves of the numerous researches made by their countrymen in physiology, and in histology, normal and abnormal."

It is indeed a remarkable and valuable work, giving as it does, in a condensed yet readable form, all the truly important facts in relation to disease which modern German investigation has brought to light. It is not sought always to explain these facts, yet, as a general rule, they are explained, or if not, the various theories that have been proposed by authors being stated, Niemeyer contents himself with saying that these rest upon hypotheses requiring confirmation, or simply that our knowledge upon the subject is still incomplete. Our author is not so fanatical in his own views, nor in those of others, as to force facts to bend to false theories. He has liberality enough to perceive the numerous contradictions which facts insufficiently observed, or too hastily generalized, are sure to present.

The book, in its general tenor, is eminently practical, seeking to draw from every phenomenon of disease some useful application. It is at once a readable, entertaining and instructive work. Of course it is somewhat difficult to judge of the style of an author from translation, but the graphic pictures of the clinical phenomena of disease given in these volumes deserve to make the work a classic. Particu-

larly would we mention the descriptions of typhoid fever and of cholera in this volume.

It is curious to note, in the introduction by Prof. Béhier, that he finds occasion, in speaking of this work, to combat a prejudice among his countrymen, which exists also among us, against the study of minute pathology. Nothing, perhaps, could better illustrate the fact that we keep equal pace in science on both shores of the Atlantic.

Prof. Béhier says, that there are two classes of objections brought against this method of medical study, or denying the value of information derived from such a source.

There are some who ask, "What can be learned from minute physiology, and all these delicate experiments? Of what real advantage to us is the study of histology?"

"No!" says Béhier, "however useless, however unreasonable they may seem, we have no right to reject these facts. No one is authorized in saying, *non de minimis curat prætor*."

"Besides, is it true that microscopic chemical analysis only shows us unimportant facts and trivial details? This kind of research, discreetly conducted and thoroughly performed, seems to me to permit us to demonstrate the most secret properties of tissues, and to throw light upon the true character of certain very profound organic processes. By widening the circle of investigation, and thus multiplying our means of comparison, we arrive with greater certainty at a more thorough and perfect knowledge of the laws which govern many of the acts of the economy."

"It ought to be clearly set forth that the more enlightened we become, the more it is our duty to examine every fact, and not reject any because special preparatory study is requisite to properly appreciate and appropriate the labors from which a knowledge of such fact has been derived. We might as well be Chinese and enclose ourselves in a great wall."

The other objection is brought by those who pride themselves on being practical men. They say, "Vous, vous faites de la science. Bien! mais nous, nous sommes praticiens."

"Practical men!" exclaims Béhier. "How is it possible that there should exist any practice without science? Settling down into a practitioner of this sort, a man can never advance. He who is content to ruminate over and over the same cud, will soon find his mouth empty. No, no! we cannot, without being to the last degree culpable, reject without examination any scientific fact asserted by other observers."

In his preface, the author says:—"The reader cannot find in this book any new principles of diagnosis nor new methods of cure. It treats simply of those phenomena of disease which the analysis of numerous observations has led us to recognize as the most constant and most essential symptoms. As for treatment, I have mentioned only those means and medicines which have received the sanction of practical experience."

Yet it is not merely a *résumé* of older and more extended treatises, "for the reader will readily see that the end in view has been to employ recent physiology to explain the facts of pathology and therapeutics, and to show how the symptoms necessarily result from the disease."

The author often acknowledges his indebtedness to Virchow, and occasionally introduces Doctor of Philosophy Maurice Traube, whose views he not seldom differs from. Referring to the labors of Traube, Romberg, Frerichs, and others, he points to their success in the same direction that he has chosen, and says that, seeing what they have achieved, he can lay claim only to "the honor of being the first to present within the narrow limits of a manual all of pathology and therapeutics applicable to the purpose in view."

In pursuit of this plan, the usual introductory chapters are omitted, and the history, bibliography, symptoms, &c., of each disease are left to be gathered from more extended treatises. There is little or no quotation. Neither are cases related in detail, the author briefly citing, chiefly from his own observation, such facts as seem to elucidate disputed points.

Under "Treatment" he does not enumerate all the remedies that have been vaunted in each affection, but restricts himself to such as he has himself tested, or to those which he believes the experience of others in whom he places confidence has proved.

He refers "Fever" and "Inflammation" to the domain of General Pathology, and does not treat of them.

In mooted questions, such as the explanation of physical signs for instance, he gives only his own views, and enters into no discussion with those who differ from him, always in the design of making the book as concise and clear as possible.

Everything belonging to the field of external pathology is left to Surgery. Diseases not met with in Germany are not treated of. Poisons and mental disorders are omitted as not coming within the scope and object of the work.

Some no doubt will be ready to find fault with the author's classification. If it may be said to have any basis it is pathogeny, due regard being paid to the ensemble of symptoms. In the present state of our knowledge, such a classification must be to a certain extent arbitrary or theoretical. We are not yet prepared to decide whether all diseases acknowledge the same morbid origin, or if there be a separate poison for each and every disease, or again if there be certain classes or groups of diseases arising from the same source and others from different sources. If we classify diseases according to symptoms, the march of Pathology destroys the system; if according to Pathogeny, the classification must be in a great measure speculative. To examine morbid phenomena and to explain their mode of production is clearly the conscientious endeavor of Niemeyer, and not to compel diseases to enter within the imaginary lines of an arbitrary classification. Thus the author is left free to approach the facts, to examine and explain them in the full light of modern physiology and pathogeny, with an unbiased mind.

As has already been said in the review of the first volume, our author presents diseases in the order of Organs. In this volume we have, 1st, Diseases of the Urinary Organs; then, of the Genitals; next, of the Nervous System; of the Skin; of the "Organs of motion" (including under this class, Rheumatism, Gout, Rachitis, Muscular Atrophy, etc.) Lastly, we have Constitutional Affections. And here the classification seems arbitrary. Niemeyer says, "I have given the name "Constitutional Affections" to the diseases considered in the fol-

lowing Sections, in contradistinction to 'Affections of Special Organs,' which I have thus far described, and have chosen this name because from its wider signification, it seems to me preferable to that of 'Dyscrasies,' 'Cachexies,' or 'Blood diseases,' which I at first intended to apply to these disorders."

Under this head there are classed, 1st, Acute Infectious Diseases, namely: Measles, Scarlatina, Variola, Vaccinia, Varicella, Typhus and Typhoid Fevers (i. e. T. petechialis and T. abdominalis), Asiatic Cholera and Dysentery.

2d. Chronic Infectious Diseases, namely: Syphilis, and Infectious diseases derived from animals, as Glanders and Hydrophobia.

3d. General Anomalies of Nutrition without Infection, namely: Chlorosis, Scurvy, the Hemorrhagic Condition or Werlhof's Disease, the Hemorrhagic Diathesis (Bluterkrankheit), Scrofula and Diabetes.

One is at a loss to see why Acute *Contagious* Diseases should be excluded from the first of these categories; why certain skin diseases should be excluded from the second; and why, under "General anomalies of nutrition, without infection," we should have Scrofula and not Cancer, Diabetes and not Gout, the hemorrhagic condition and Chlorosis, and not Melanæmia nor Leukemia.

Nor does the author enlighten us much as to the grounds of his classification. Let us look at Gout, for instance, by the side of Diabetes. To state it in general terms, in Gout we have the accumulation in excess in the blood of a normal product of decay of tissue, to wit: Uric Acid. In Diabetes, we have the excessive accumulation in the blood of a normal product of digestion and of the Liver, to wit: Sugar. "But we do not know," says Niemeyer speaking of Gout, "whether the uric diathesis be the primitive and essential disease, or if it be not intimately associated with, perhaps the result of, other and more important anomalies of the blood. Neither do we understand the disturbances of nutrition which produce an excess of uric acid, nor do we know what prevents the proper elimination of this substance, whether its accumulation be the result of excessive production on the one hand, or of retention on the other." Can we in our present state of knowledge say much more or less than this concerning Diabetes?

[To be continued.]

A Practical Treatise on the Physical Exploration of the Chest, and the Diagnosis of Diseases affecting the Respiratory Organs. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, &c. Second Edition, revised. Philadelphia: Henry C. Lea. 1866.

THE interval of ten years which has passed since the first edition of this valuable work was published, has added much to the author's experience and given him ample opportunity and abundant materials for improvement of and addition to it. This he has well availed himself of, and the work before us has consequently been to a considerable extent re-written. He has constantly kept in view the great importance of a clear and comprehensive exposition of the science of physical exploration of the thorax, while he has aimed at giving the study as practical a character as possible by avoiding all unnecessary complication and over-refinement.

The author claims to have added important means of diagnosis in the case of certain signs, by indicating in connection with them the great value of the pitch of the sound in determining its true character. In this way he shows that bronchial or tubular respiration may be easily distinguished from cavernous respiration; prolonged expiratory sound not caused by solidification of the pulmonary tissue from that produced by this cause; puerile from rude respiration; bronchophony from increased vocal resonance; pectoriloquy caused by solidified lung from that which indicates a cavity; and in numerous other instances by attention mainly to this sign he claims to be able to settle doubtful questions which are often of extreme significance. Our own experience confirms his statements in some of these instances, and all auscultators will welcome his suggestions as of much practical value. Various other features, such as signs from the *whispered voice*, give novelty to this work. Throughout, the author goes upon the only safe ground of arguing from physical signs to actual conditions, and not by the reversed process of inferring certain physical conditions from preconceived theories. Dr. Flint's descriptions of the phenomena of thoracic exploration are clear and intelligible, and his analysis of physical signs is thorough and exhaustive, without becoming tedious and merely speculative. He is conversant with all the recent theories connected with his subject and give them due consideration. As a whole, his work must take a permanent place in the front rank of authorities in the science of physical exploration. The present edition is handsomely printed, on good paper, in clear, large type.

Clinical Observations on Functional Nervous Disorders. By C. HANDFIELD JONES, F.R.C.P. London; Physician to St. Mary's Hospital, &c. Philadelphia: Henry C. Lea. 1867.

IN an overtaxed community like ours, in which the various disorders arising from exhaustion seem to be constantly increasing, a practical work like the one before us, from so distinguished a source, must be eagerly welcomed. The author is not inclined to give the theory of self-limitation in disease a very wide application, and says that he is "more and more convinced that we ought not to think of diseases as uniform entities, but as varying and inconstant pathological conditions."

In discussing his subject, the points which he specially indicates as most worthy of attention are, "the recognition of primary paresis of nervous centres, and its distinction from reflex paralysis, the numerous illustrations of vaso-motor nerve disorder, the theory of inhibitory action, the remarkable affinity between paralysis, spasm, anæsthesia and neuralgia, the different quality of nervous disorder apparently of the same kind in different instances, the intimate relation of neuralgia in most instances to debility, and the importance of an accurate adjustment of remedies to each individual case."

The author is very forcibly impressed with the great importance at the present day of giving more attention to the *modus operandi* of remedies and thus gaining a more thorough mastery of them, and hopes that the profession may adopt some plan of united action by which the many questions in this department of therapeutics may be defi-

nately settled. We are inclined to the view that such action would narrow the domain of medical skepticism not a little.

In thirty-eight chapters, Dr. Jones discusses the multiform varieties of nervous disorder, and in the thirty-ninth the remedies employed in their treatment. The work is enriched by numerous condensed abstracts of cases, which are very instructive. It is a very valuable contribution to practical medicine.

Practical Therapeutics, considered chiefly with reference to Articles of the Materia Medica. By EDWARD JOHN WARING, F.R.C.S., F.L.S., Surgeon in Her Majesty's Indian Army. From the Second London Edition. Philadelphia: Lindsay & Blakiston. 1866.

As notwithstanding the skeptical or philosophic tendencies of the present day we have not yet reached the point where we are prepared to burn all our books on *Materia Medica*, and trust alone to the *vis medicatrix*, with the collateral aids of hygiene and nursing, we must expect that the press will give birth from time to time to new works on the therapeutic uses of drugs. Too often such works present little substantial claim to notice on account of any special value belonging to them; but the work before is one which really does offer, in its plan and arrangement, to say nothing of its other merits, features specially deserving of commendation. In the first part the object of the author was to present in a concise form a scientific description of the drug, its medical properties and action, the principal official preparations, and finally its therapeutic uses. It is to this last item that he has devoted particular attention, and it is this which gives his work its peculiar value. Take for instance, opening the book at random, Iodinium. Under the head of Therapeutic uses we have no less than fifty-eight distinct paragraphs giving an account of its use in so many distinct diseases or phases of disease, quoting the authorities for its use in each, with foot notes containing full references to volume and page of the writer quoted. Each paragraph is numbered from the beginning of the book, and the alphabetical arrangement has been adopted for greater convenience, most wisely as we think, no attempt having been made at classification.

The second part is a manual of Practical Therapeutics, and treats of the therapeutic action not merely of drugs, but of the action of other agents used in the treatment of disease, such as electricity, baths, counter-irritation and the like. The whole concludes with two copious Indices: the first of Diseases, in which under each the various remedies which have been employed in its treatment are catalogued and referred to by the number of the paragraph in which they are mentioned; and the other an Index of medicines and curative agents. Nothing can be more convenient than the whole arrangement of the book, and the author has carried out his plan with remarkable patience and thoroughness. It is based on the British Pharmacopœia, but this is not so materially different from that of the United States as essentially to detract from its value. We know no other work which compares with it as a work for reference to the busy practitioner. It is printed in elegant style, and as a whole we most cordially recommend it to our readers.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 3, 1867.

REPORT OF THE SURGEON-GENERAL.

THE Annual Report of Surgeon-General Joseph K. Barnes, Brevet Major General, U.S.A., to the Secretary of War, for the year ending July 1, 1866, has been published, and contains interesting information relative to the establishment of the Medical Department of the Army upon a peace footing and to its past career of usefulness. The system of General Hospitals, Hospital Transports and Ambulance Corps has been dispensed with, hospital supplies have been sold, and provision for the sick and wounded has been made in Post Hospitals, of which there are 187, with a total capacity of 10,881 beds.

The amount disbursed during the year for artificial limbs for disabled soldiers was \$198,999, and in connection with this subject the report says:—

“The appropriations for supplying artificial limbs to maimed soldiers, so largely increased the number of inventors and manufacturers that it was found necessary for the protection of the Government, as well as of the soldier, to convene from time to time Medical Boards composed of experienced officers, with instructions to examine all models submitted, subjecting them to the severest tests of durability, usefulness and comfort, upon patients in hospitals. The models of twenty three (23) manufacturers of artificial limbs and apparatus for resections, having been recommended by these various boards, were adopted, and Medical Directors authorized to give orders to those applicants who were entitled thereto upon either of these they might elect. In addition, Medical Directors were instructed to require satisfactory evidence of delivery of the limb or apparatus so ordered, and its suitableness and workmanship, before approving accounts for payment. Despite all precautions, however, it has been found impossible to secure in every instance useful and well-fitting limbs. In many cases the urgency of the applicant or the interest of the manufacturer has acted injuriously in adapting limbs before stumps had entirely healed, or the enlargement resulting from inflammation had subsided, and re-opening of wounds, or shrinking of stumps, with consequent inability to wear the limb provided by Government, have resulted. In other cases manufacturers, although guaranteeing to supply upon Government order, at a stated price, limbs fully equal to those submitted to the Boards, have furnished an inferior article or have extorted from the soldier an extra payment for some fancied or nominal improvement. In all such cases coming to the knowledge of this Department measures have been taken to protect the soldier, and punish the criminal party by requiring the defective limb to be replaced, or the overcharge reimbursed, under penalty of entire withdrawal of Government orders.

“From date of Act of Congress (July 16, 1862) authorizing artifi-

cial limbs to be furnished, to July 1, 1866, there have been supplied by this Department, to maimed soldiers, three thousand nine hundred and eighty-one (3,981) legs; two thousand two hundred and forty (2,240) arms; nine (9) feet; fifty-five (55) hands; one hundred and twenty-five (125) surgical apparatus, and it is estimated that not more than one thousand (1000) limbs remain still to be supplied, at a cost probably of seventy thousand dollars (\$70,000). Should the appropriations for this purpose be continued, it is recommended that, upon furnishing the evidence now required to obtain an artificial limb, the applicant receive, from a Medical Disbursing Officer, under such regulations as may be prescribed by the Secretary of War, its present established money value in lieu of an order upon a manufacturer. Such an arrangement would include those cases in which, from the nature of the injury and operation, no limb or (surgical) appliance can be advantageously adopted, by extending to them the same allowance now made to their more fortunate fellow-sufferers."

With reference to cholera, of which two army surgeons have died, among only six deaths in the medical staff during the year, the report goes on to say:—

"Early during the present year, grave apprehensions of the appearance of Asiatic cholera as an epidemic were justified, and March 3d, 1866, I had the honor to recommend, for the protection of our troops on the Southern Atlantic seaboard, that a rigid quarantine be established, and sanitary precautions enforced, where necessary, by military authority.

"The adoption of these measures has thus far been crowned by more than ordinary success, and although the disease has appeared at the recruiting dépôts and forts in New York Harbor, at Tybee Island, Ga., Galveston, Texas, Forts Jackson and St. Philip, La., Newport Barracks, Ky., Jefferson Barracks and St. Louis Arsenal, Mo., Carlisle Barracks, Pa., and Vicksburg, Miss., it has been controlled, kept in check, or entirely eradicated, before assuming its usual alarming epidemic form. I have already reported for your favorable consideration the names of certain medical officers to whose skilful administration, untiring zeal and energy these results, by which the horrors of a widely spread pestilence have been averted, are attributable. With the above exceptions, the general health of the troops has been good."

The average mean strength of white troops for the year was 100,133, and the proportion of deaths to cases treated was 1 to every 52. The strength of the black troops was 53,541, among which the amount of sickness was greater than with the former, and the mortality rate 1 to every 29 cases treated. There were in the hospitals at the beginning of the year and subsequently admitted 64,438 patients, of whom at its end but 97 remained under treatment.

Our readers will be pleased to learn that arrangements are completed for the transfer to a fireproof building of the Army Medical Museum, and all the valuable mortuary records connected with the Department, including "sixteen thousand (16,000) folio volumes of Hospital Registers, forty-seven thousand (47,000) Burial Records, and sixteen thousand (16,000) Hospital Muster and Pay Rolls, and Alphabetical Registers of the Dead containing two hundred and fifty thou-

sand (250,000) names of white, and twenty thousand (20,000) of colored soldiers, compiled from them.

"During the year official evidence of cause of death, or of discharge for disability, has been furnished the Pension Bureau in twenty-six thousand five hundred and eighty-nine (26,589) cases; Paymaster General, eight thousand (8000) cases; Adjutant General, ten thousand six hundred and twenty-three (10,623) cases; Authorized Agents, four thousand (4000) cases, making a total of forty-nine thousand two hundred and twelve (49,212) cases.

"This information, obtainable from no other source, has been of the greatest importance in the settlement of the claims of discharged soldiers and of widows and orphans, and in a majority of the cases is ample and satisfactory. In addition to the above, two hundred and ten thousand and twenty-seven (210,027) discharges upon certificate of disability, have been examined and classified.

"The total number of surgical cases classified and recorded is, 'of wounds,' etc., one hundred and thirty-three thousand nine hundred and fifty two (133,952), and of 'operations' twenty-eight thousand four hundred and thirty-eight (28,438).

"The preparation for publication of the Medical and Surgical History of the War has been prosecuted with energy, much of the manuscript and several of the illustrations for the first volume being completed. The Army Medical Museum continues to increase in value and usefulness, and the greater security and additional accommodations of the building to which it will be shortly removed admits of the addition of a great number of interesting and instructive specimens not hitherto available for want of space.

"A small appropriation will be required to continue the work of classification and preservation of this national collection."

The doings of a Medical Board convened in New York for the examination of candidates for positions in the Medical Staff and of Assistant Surgeons for promotion, and the changes which have taken place during the year, are thus stated:—

"Ninety-eight (98) applicants were invited to present themselves, of which number nineteen (19) were fully examined, found qualified, and approved; seventeen (17) withdrew before their examinations were concluded; thirty-one (31) were rejected, and thirty-one (31) failed to appear.

"Twenty-three (23) Assistant Surgeons, U. S. Army, were examined for promotion, twenty (20) of whom were found qualified; two (2) reported for re-examination, and one (1) disqualified.

"Their services being no longer required, one hundred and seventeen (117) Surgeons and Assistant Surgeons of Volunteers have been mustered out of service, since my last Annual Report. One (1) killed by Indians.

"In the Medical Staff, U. S. Army, there have been twelve (12) resignations; six (6) deaths, two (2) by Cholera, one (1) by accident, and three (3) from disease.

"Fuller returns than those embraced in the Report of 1865, give the number of casualties from commencement of the war to present time, in the Regular and Volunteer Medical Staff, as three hundred and thirty-six (336), viz.:

"Killed in battle, twenty-nine (29); killed by accident, twelve (12); died of wounds, ten (10); died in rebel prison, four (4); died of yellow fever, seven (7); died of Cholera, three (3); died of other diseases, two hundred and seventy-one (271); making a total of three hundred and thirty-six (336).

"During the war thirty-five (35) Medical Officers were wounded in battle.

"The distribution of troops in small bodies over so large an extent of country, necessitates the employment of Acting Assistant Surgeons temporarily, but the number of these has been reduced from one thousand nine hundred and ninety-seven (1,997), on July 1, 1865, to two hundred and sixty-four (264) on July 1, 1866, and will be still farther diminished when existing vacancies in the grade of Assistant Surgeons, U. S. A., created by the Act of Congress of July 28, 1866, are filled. A corresponding decrease in the number of Hospital Stewards, for general service, has also been effected, and in every branch of this Department, reduction and retrenchment have been rigidly enforced."

Connected with the report is an interesting statement in full of the quantities of all the medical supplies issued during the war, the grand total of which expressed in figures is immense, and a few items of which may be given by way of illustration:—*Acaciæ pulvis*, 1,050,580 oz; *acidum sulphuricum*, 657,896 oz; *ætheris spiritus nitrici*, 1,688,943 oz; *æther fortior*, 987,687 oz; *chloroformum*, 1,588,066 oz; *copaiba*, 1,292,129 oz; *ferri chloridi tinctura*, 690,682 oz; *lini pulvis*, 521,554 lbs; *morphiæ sulphas*, 29,828 oz; *opii pulvis*, 448,804 oz; *opii tinctura*, 901,467 oz; *pilulæ opii*, 442,926 doz; *potassii iodidum*, 514,064 oz; *pilulæ quiniæ sulphat.*, 178,050 doz; *quiniæ sulphas*, 723,521 oz; *spiritus frumenti* (whiskey) in 32 oz bottles, 2,430,785 bottles.

If our readers are curious to know what books were most valued by the Medical Department and Army Surgeons, they will learn this by examining the following list, which contains the number of copies supplied:—

"Gray's Anatomy, 3,442; Power's Surgical Anatomy (of arteries), 3,895; Fownes's Chemistry, 1,640; Dunglison's Medical Dictionary, 1,905; Webster's English Dictionary, 617; Wood & Bache's Dispensatory, 4,850; Hygiene, 3,100; Beck's Jurisprudence, 1,062; Bedford's Midwifery, 537; Virchow's Pathology, 893; Parish's Pharmacy, 1,333; Dalton's Physiology, 1,412; Watson's Practice of Medicine, 3,254; Bennett's Practice of Medicine, 1,542; Hartshorne's Principles of Medicine, 1,237; Erichsen's Principles of Surgery, 5,370; Stephen Smith's Principles of Surgery, 3,251; McLeod's Surgical Notes, 905; Guthrie's Commentaries, 781; Minor Surgery, 2,671; Stillé's Therapeutics, 1,026; Longmore on Gun-shot Wounds, 1,178; Jones on Diseases of the Eye, 576; Toynbee on Diseases of the Ear, 575; Wilson on Diseases of the Skin, 476; Bumstead on Venereal Diseases, 7,317; Woodward's Hospital Steward's Manual, 3,239."

The report closes with a statement that models of U. S. General Hospitals, with all the improved equipments, are to be sent to the Paris Exposition, and with the following well-merited compliment to Secretary Stanton:—

"It is a matter of just pride and congratulation to the medical pro-

fession throughout the civilized world, that your deep interest in the health and hygienic condition of the army, your constant vigilance and most liberal assistance in all that could in any manner conduce to the greater comfort and welfare of the sick and wounded, and your official recognition of faithful and meritorious service by Officers of this Department, have been responded to on their part by redoubled exertions, unflinching devotion to duty, and an *esprit du corps* that secures to it professional talent of the highest order. Letters from the most eminent Surgeons and Physicians in Europe, in acknowledgment of publications from this Office, do not express more astonishment at the magnitude of the war, than admiration of the unvarying support and encouragement extended to the Medical Staff under your administration of the War Department."

Diphtheria and Croup ; Differential Diagnosis.—(From Dr. GAILLARD'S Prize Essay on Diphtheria.)

<i>Diphtheria.</i>	<i>Croup.</i>
Disease of the blood ; a toxæmia ; a constitutional disease, with local manifestations.	Not a disease of the blood ; a local disease, with constitutional manifestations.
Blood primarily affected ; sometimes there are no local manifestations.	Blood, if at all, affected secondarily ; local manifestations invariable.
First exhibits itself in the fauces, locally.	Locally, first exhibits itself in the trachea.
Commences always above the rima glottidis.	Commences always below the rima glottidis.
Does not extend below the rima glottidis, unless complicated with croup.	Never extends above the rima glottidis.
Asthenic disease ; constitutional symptoms primary ; local symptoms secondary.	Sthenic disease ; local symptoms primary, and constitutional symptoms secondary.
Depression often manifested without dyspnœa.	Depression not often manifested before dyspnœa.
Contagious.	Not contagious.
Not peculiar to any age.	Peculiar to infancy and childhood.
Respiration not affected, unless the disease extends downwards ; dyspnœa not a prominent symptom.	Impaired and difficult respiration always a prominent symptom ; often the chief symptom.
No cough, unless croup supervenes.	Cough almost invariably present.
The membranous exudation of fibrin always commences above the rima glottidis.	The membranous exudation of albumen always commences below the rima glottidis.
Exudation only extends below as a complication.	Exudation never extends above.
Occasionally there is a cutaneous eruption.	There is never a cutaneous eruption.
Epidemic chiefly, and seldom sporadic.	Sporadic and never epidemic.

Swelling of the lymphatic glands behind the jaw frequently occurs.	Swelling of the lymphatic glands behind the jaw never occurs.
Duration, one to three weeks, with sequelæ.	Duration never beyond the 11th day (Cragie); no sequelæ.
Exudation fibrinous.	Exudation albuminous.
Dyspnœa rare, and when present, uniform.	Dyspnœa common and invariably spasmodic.
Dyspnœa not produced or increased by deglutition.	Dyspnœa frequently caused and increased by deglutition.
Invades at all hours.	Invades chiefly at night.
Not caused by cold or dampness.	Generally caused by cold and dampness.
Prognosis grave; mortality severe.	Prognosis generally good; mortality slight.
Antiphlogistic treatment injurious.	Antiphlogistic treatment curative.
Tracheotomy contra-indicated and generally forbidden; no constitutional resiliency.	Tracheotomy indicated and advised; constitutional resiliency very decided.
Sequelæ — paralysis, strabismus, amaurosis, &c.	No sequelæ.
Fœtor of the breath constant and great.	Fœtor of the breath generally absent.
"Dissolution of the blood;" loss of its coagulating power.	"Dissolution of the blood" never seen; increase of its coagulating power.
Constitutional symptoms precede the local.	Local symptoms precede the constitutional.
Membranous exudation always present (as a rule) and always seen; present as the rule.	Membranous exudation seldom present and never seen; present as the exception.
Exudation thick, buff colored; coriaceous.	Exudation thin; not buff colored; not coriaceous.
Membrane renewed as the rule.	Membrane renewed as the exception.
Death, when disease is uncomplicated, from asthenia.	Death from apnœa.
Sound of the cough moist and sonorous.	Sound of the cough sonorous and metallic.
Convalescence slow, unreliable, and complicated with the sequelæ of the disease; interrupted.	Convalescence easy and uniform; no sequelæ; uninterrupted.

MEDICAL INTELLIGENCE.

THE Paris Faculty of Medicine as now constituted consists of the following temporary staff of professors:—Gavarret, Medical Physics; Racle (substitute for Andral), Pathology and General Therapeutics; Jarjavy, Anatomy; Wurtz, Medical Chemistry; Denonvilliers, Operations and Apparatus; Monneret, Medical Pathology; Richet, Surgical Pathology; Robin, Histology; Bonilland, Bucquoy (substitute for Guillot) and Fournier (substitute for Grisolle), Clinical Medicine; Houel (substitute for Jobert), Laugier, Velpeau and Nélaton, Clinical Surgery; and Depaul, Clinical Midwifery.

The Minister of Public Instruction has announced his intention of immediately filling the vacant chairs, and requests all candidates to send in a statement of their claims and qualifications. Some of the French Journals recommend the re-establishment of the *concours*, of which M. Guérin says, "it is not fitted either to render justice or to lead to the discovery of truth in the regions of elevated science; it is a means, rather, for bringing into prominence merits of a secondary order—information, memory, and the talent for exposition; but it excludes all superiority and originality."

A fossil human parietal and frontal bone has just been found in Alsace in a stratum of clay of quaternary epoch, in company with bones of a small horse, a bison, and elephant.

The use of Burnett's disinfecting fluid has been officially discontinued in the British Navy from the fact that several fatal cases of poisoning have occurred by its having been accidentally swallowed by seamen. Carbolic acid has been substituted for it.

Discovery of a Mammoth.—At a late sitting of the Academy of Sciences a letter was received from M. de Baer, of St. Petersburg, announcing that a mammoth, still covered with its skin and hair, had been discovered in the frozen soil of Arctic Siberia. This discovery had been made in 1864 by a Samoyede in the environs of Taz Bay, the eastern branch of the Gulf of Obi. The news only reached St. Petersburg towards the end of 1865; but as the bodies of large animals will keep a long while in those regions, if they are not completely uncovered, and as this mammoth was still inclosed in the frozen soil, the Academy of St. Petersburg has, with the aid of the Russian Government, sent M. Schmidt, a distinguished palæontologist, to examine the animal and its position in the locality. It is hoped M. Schmidt will arrive before the decomposition is too far advanced, and that a correct notion may be obtained of the outer appearance of the animal, and also, from the contents of the stomach, of its natural food. The pre-historical figure of the mammoth drawn on a piece of ivory, found in a cavern of Périgord by M. Lartet, will then admit of verification.—*American Journal of Pharmacy*, from *Foreign Journal*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 29th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	32	41	76
Ave. mortality of corresponding weeks for ten years, 1855—1865	40.1	40.7	80.8
Average corrected to increased population	00	00	89.03
Death of persons above 90	1	0	1

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 29th, 76. Males, 32—Females, 44. Apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 2—bronchitis, 2—cancer, 1—consumption, 15—convulsions, 1—croup, 4—debility, 3—diabetes, 1—diarrhœa, 1—dropsy, 2—dropsy of the brain, 1—dysentery, 1—scarlet fever, 2—typhoid fever, 1—gastritis, 1—disease of the heart, 2—infantile disease, 6—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 10—cerebro-spinal meningitis, 1—old age, 1—premature birth, 1—rheumatism, 1—smallpox, 1—spina bifida, 1—suicide, 2—unknown, 5—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 5—between 20 and 40 years, 21—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 49—Ireland, 19—other places, 8.

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AMBLYOPIA CAUSED BY ANÆSTHESIA OF THE RETINA.
ENTIRE RECOVERY.*

CASE TREATED AT THE EYE INFIRMARY OF WIESBADEN, AND REPORTED BY
DR. G. HAASE.

[Translated from the *Klinische Monatsblätter für Augenheilkunde*, August, 1866, by HASKET DERBY, M.D., and communicated for the Boston Medical and Surgical Journal.]

Miss von S., from H., 17 years old, presented herself Dec. 6th, 1865, complaining that she had seen nothing with the left eye for the last five months. She attributes this loss of vision to the fact that the eye was struck by the cork of a bottle of Seltzer water which was being opened. She says that immediately after this accident she could only distinguish between light and darkness, and that this state of things has remained unchanged up to the present. The attending physician prescribed cold applications, strict seclusion from light, and the use of the eye douche. In spite of fourteen days' treatment, no improvement took place. Two years before this injury the patient had commenced the use of concave glasses, wearing at first $-4\frac{1}{5}$. These glasses, with which she saw perfectly well at first, soon became too weak, and she was obliged to continually increase their strength, till at the end of two years she had reached -7 . After the injury, the myopia of the right eye became still greater, and the patient was now obliged to use $-1\frac{1}{2}$ to see distinctly. We learned, moreover, that for more than two years the patient had suffered from sensations of dazzling, persistent headache, an inflated feeling in the stomach and nausea, and a year before had passed through an attack of chorea. Catamenia always regular.

* Cases of this kind have been but recently investigated and classified. Even at this time their diagnosis would be but little more obscure to the general practitioner than to many a professed ophthalmologist. So important is it that they should be carefully separated from other forms of amblyopia, and so different is the treatment they require, that I desire to call attention to the accompanying very instructive case. Another instance of the same affection may be found in the "Clinical Lectures on Amblyopia and Amaurosis," by von Graefe, Case VII., a translation of which was published in this JOURNAL during the past winter. Excepting these two translations, probably nothing else is to be found in the English language on true anæsthesia of the retina.—H. D.

On close examination of the eyes, it is found that, with the left eye, fingers can be counted at the distance of $1\frac{1}{2}$ feet, though not with entire accuracy. On looking through blue glasses, the vision is stated to be improved. There is a marked concentric contraction of the field of vision. The average diameter of the remaining portion, measured at $1\frac{1}{2}$ feet, amounts to 16 centimetres. The right eye reads Jaeger No. 4; myopia = $\frac{1}{4\frac{1}{2}}$; vision = $\frac{1}{2}$. Here, too, a concentric contraction of the field of vision is detected; the diameter of the remaining portion amounts to 16 centimetres. By means of blue glasses, the field of vision of either eye gains from 1 to 2 centimetres. On each side phosphenes are easily produced. The ophthalmoscope shows a slight amount of sclerotico-choroiditis in the left eye; the remaining appearances in each are normal.

The principal factors in determining the diagnosis of the present case were:—1st, the tendency of the patient to nervous derangements, as revealed by the previous investigation; 2d, the concentric contraction of each field of vision; 3d, the youthful time of life; 4th, the absence of ophthalmoscopic change; 5th, the improvement in vision resulting from colored glasses; 6th, the symptoms of dazzling. We were thus led to establish a diagnosis of anæsthesia of the retina and a favorable prognosis, the patient being accordingly admitted into the infirmary for treatment.

Valerianate of zinc, gr. ij., was ordered to be taken daily, and to be increased by gr. i. every second day. The patient was not to use the eyes in the least, and to be entirely deprived of light.

An examination made Dec. 11th, showed that improvement had already taken place. With the left eye, patient reads words of No. 19. Each field of vision has gained somewhat in size.

Dec. 16th.—With the left eye, patient reads No. 18 by the aid of blue glasses; it being impossible for her without them to make out words of No. 20. Field of vision somewhat narrower than on Dec. 2d. On lowering the flame of the lamp, a slight increase in the field of vision may be demonstrated.

19th.—Patient reads left, No. 17; right, No. 4; the left eye always being aided by a blue glass. *R.* Zinci lact., gr. ij. daily.

22d.—Increase in each field of vision. The improvement brought about in the vision by means of green and yellow glasses is remarkable; the left eye reads No. 17 through a blue glass, No. 16 through a green, and No. 15 through a yellow; the right, No. 2 through a yellow.

The next day the patient reads through red glasses—the right, No. 1; left, No. 14. With a glass of the deepest violet tint, through which a normal eye would with difficulty make out No. 6, she reads, left, No. 14. It is with difficulty that she is able to look continuously through the concave glasses previously worn. Partly for therapeutical purposes, and partly to make an accurate determination of

the amount of existing myopia, each eye is brought under the full influence of atropine.

29th.—With the left eye, and aided by blue glasses, patient reads No. 7 at a distance of from 9 to 10 inches; myopia = $\frac{1}{9}$; vision = $\frac{2}{3}$. The right eye reads No. 1 in 10 inches; myopia = $\frac{1}{10}$; vision = $\frac{1}{2}$. R. Ferri hydrogen. reduct., gr. iij., daily.

Jan. 5th, 1866.—The field of vision shows a marked increase in size compared with formerly, that of the left eye being the larger. Its diameter, measured at $1\frac{1}{2}$ feet, amounts to between 25 and 30 centimetres. The left eye reads No. 4; vision = $\frac{1}{2}$; the right, No. 1; vision = $\frac{2}{3}$. Patient complains of severe pains in the eyes, coming on after any attempt at more exact fixation. The examination as to insufficiency of the interni reveals an insufficiency at the distance of 10 inches; corrected by a prism of 7° , with the base inwards.

11th.—Aided by the prismatic spectacles, the patient reads No. 1 with each eye, fluently and without exertion. The field of vision has again decidedly gained, that of the left being still the larger. From this time up to the discharge of the patient, on the 18th of January, both the field and the acuteness of vision steadily gained, the vision being always improved by colored glasses, among which red occupied the first place.

18th.—Vision of left = 1; of right = $\frac{2}{3}$. The powder (iron) was ordered to be for the present continued. A course of the waters of Schwalbach was advised for the summer.

The history of this case has been detailed with so much minuteness, because we are not aware of the existence of any exactly described cases of this kind.

To von Graefe belongs the merit of having divided the different classes of amaurosis and amblyopia, and established their diagnosis and prognosis. In his lectures on Amaurosis, reported by Dr. Engelhardt (*Monatsblätter*, 1865), we find, too, the description of a case of anæsthesia of the retina, occurring in a delicate boy 10 years old, and entirely cured after a treatment of four weeks. Here, too, were found nervous derangements, which in our case took on more of an hysterical character. One might have been inclined to set down the accident to the eye, which happened six months previously, as the exciting cause of the disease; this theory, however, was refuted by the fact that a material diminution in vision and contraction of the field of vision were found in the right eye, which had not received any injury, as also by the statement of the patient that she had noticed a failure of sight before the injury, although we may assume that the disease of the eyes was aggravated by this accident, followed as it was by strong nervous excitement on the part of the patient.

It is a source of much gratification to us that we entirely abstained from our original plan of experimenting on the patient with the Heurteloup, inasmuch as we subsequently came across notes of similar cases of anæsthesia, in which, after the application of this and

similar derivative agents, the disease took on an extremely obstinate character, and the patients had to be discharged 'unimproved.

In support of which, as much of the following case as can be found in the records, is briefly presented.

Miss J., from N., 24 years old, was admitted into the Infirmary, Aug. 22d, 1862. The patient had already had trouble with the eyes. Three months before she was suddenly attacked with nystagmus, vivid sensations of dazzling and photophobia, and observed a gradual diminution of vision. The physicians who were consulted suspected an affection of the optic nerve, and ordered derivatives. At the same time, a contraction in the field of vision downwards and inwards was found to exist in the right eye; the patient is said to have read Jaeger No. 3.

The condition of the patient at her admission was as follows:—No. 1 is read with each eye; each field of vision is concentrically contracted; measured at six inches the diameter of the remaining portion averages two inches. Diagnosis, commencing atrophy of the optic nerve. Prognosis, unfavorable.

August 25th.—Patient receives one cylinder of the Heurteloup on each side; tinct. valerian. and tinct. castorei are ordered internally. A species of fainting turns occur, during which the hands and feet become cold and vision entirely fails for a short time. The field and acuteness of vision maintained themselves at the same point up to Sept. 2d, when a second application of a single cylinder was made on each side. The symptoms of nervous irritation now increased, while the field and acuteness of vision steadily diminished.

Sept. 27th.—The patient was discharged, not relieved, and iron ordered internally. According to oral reports, dating from Sept. 17th, the general health had improved; the trouble with the eyes remained the same. The patient now received applications of electricity, and loss of cutaneous sensibility to pain in various parts of the body, especially on the back, was made out. After forty-one sittings, the state of the patient remained the same. The last note we find in this case is dated January 17th, 1863, on which day the patient presented herself in an unaltered condition.

There is no doubt but that we have here to do with a case analogous to the one we have described at length, and which, under similar treatment, would also have gradually improved.

THE medical classes of that city, according to the *New York Medical Record*, are not as large as some of the most sanguine had reason, at the commencement of the lecture term, to expect. Some of the schools have, it is true, a very fair attendance, but the majority are considerably in the background compared with what they were last year.

POST-PARTUM HÆMORRHAGE ON THE ELEVENTH DAY AFTER DELIVERY. DEATH.

By JOHN HOMANS, JR., M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

MRS. McS., a resident of Charlestown, a strong and very fleshy woman, 43 years of age, expecting to be confined in January, 1867, was seized with convulsions on the 11th of the present month. She had miscarried once, and had borne eight living children, so that she was now in her tenth pregnancy. Her previous labors had been short and easy, lasting about two hours, and on the fourth day after her confinements she had resumed her household duties; but, before her last baby was born, her lower extremities had been swollen, and she had had a "fit" after delivery. During her present pregnancy she had been perfectly well, except that her hands had at times felt numb. On the morning of Dec. 11th she went to Boston, feeling perfectly well; she made some purchases in the city, and came home in the afternoon. Soon after her return, about four o'clock in the afternoon, she went to her room, lay down on her bed, vomited and became convulsed. A physician was called, and she was bled, losing at the time of the bleeding and subsequently about a pint and a half of blood. I saw her at 11, P.M., and was informed that up to that time she had had seven fits. Between the time when I arrived and noon of the next day she had seven more fits, some of them very severe, biting of tongue, &c. &c., followed by stertorous breathing. Her urine was found to be highly albuminous, and contained many granular and waxy casts of the tubules of the kidney. Ether was administered, and controlled the convulsions in a measure. The labor pains were feeble, the os dilated very slowly, and at 9, A.M., Dec. 12th, was the size of a dollar, and hard. Warm water was thrown into the cavity of the uterus through a catheter passed by the side of the child's head, and half an ounce of castor oil was given by the mouth. The oil operated freely during the afternoon. She had been wholly unconscious since the first convulsion, but could swallow. At five o'clock in the afternoon, the os being well dilated, the pains being insufficient to expel the child, the head not yet having entered the pelvis and there being no prospect of its doing so, the long forceps were applied. Delivery of the child (the sounds of the foetal heart had not been heard for fourteen hours) was safely accomplished. The placenta followed twenty minutes afterwards, the uterus contracted firmly, and there was no hæmorrhage.

Dec. 13th.—Is recovering her senses, and recognizes those around her. Pulse 100, soft. Urine, drawn off, is albuminous, and contains casts.

14th.—Is improving. No flooding. Urine still contains casts, albumen, and many crystals of uric acid. Ordered to remain in bed.

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Has some diarrhœa; to take Dover's powder. Abdomen natural to the feel.

16th.—Is perfectly herself; voice quite hoarse; does not remember events of the last three weeks. Urine slightly albuminous; no casts could be found.

22d.—Feels very strong, and has with difficulty been persuaded to keep her bed; has a good appetite; digestion natural. Urine contains a *trace* of albumen; no casts, and many healthy pus-corpuscles.

On the morning of Dec. 23d I was called to visit her, but found her dead. I learnt that she had come down stairs during the afternoon of the 22d, feeling very strong and well. While she was sitting in the kitchen, a boy was brought in who had fallen through the ice of a neighboring pond. Mrs. McS. was very much agitated and alarmed at the sight. She retired to bed at 6, P.M., and at 8½ flooding suddenly occurred to an alarming degree, and caused much exhaustion. A neighboring physician was called, who prescribed, and the flooding ceased. A second attack came on some two hours afterwards, and patient died at 3½, A.M., Dec. 23d. I was summoned, but the messenger did not reach me till after the death of Mrs. McS. No autopsy was made.

I can find in the obstetrical works and essays which I have examined, but *one* case in which *post-partum* hæmorrhage occurred *ten days* after the expulsion of the placenta. Dr. Collins states that during his Mastership of the Dublin Lying-in Hospital, a period of seven years, among 16,414 cases of labor there were but *forty-three* cases of hæmorrhage *subsequent to the expulsion of the placenta*. Of these, but *three* occurred later than *twelve hours* after the expulsion of the placenta. One was on the *fourth day*, one on the *fifth*, and one on the *tenth*. The case above described occurred on the *eleventh*. The woman referred to by Dr. Collins as having hæmorrhage on the tenth day, "had frequent discharges of blood from the uterus for the first ten days, and on the tenth, the discharge becoming profuse, some coagula were removed from the cavity of the uterus, and the discharge ceased." The sudden occurrence of fatal uterine hæmorrhage, as late as the eleventh day after the expulsion of the placenta, without previous warning, and when the patient might fairly have been called well, seems to me extraordinary.

December 24th, 1866.

Swinging as a Remedy.—Brown-Séquard recommends the use of the swing as a preventive of nervous paroxysms which recur periodically. In certain cases of hysteria and epilepsy, he has prevented the paroxysms by engaging his patient in violent swinging at the first indication of the fit. The *modus operandi* is easily explained.—*Review of Medicine and Pharmacy.*

CASE OF FRACTURE OF THE HIP-JOINT, WITH OTHER SEVERE INJURIES, TREATED WITHOUT SPLINTS.

By THEODORE W. FISHER, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

J. T., aged 13 years, a healthy boy, of Irish parentage, April 14th, 1862, fell from the fourth story upon a plank walk. He was taken up insensible, but had revived when I saw him, ten minutes after the accident.

I found a compound, comminuted fracture into the right elbow-joint, with dislocation of the ulna and radius outwards. The external wound was two inches in length, and through it could be seen the whole articulation. Both radius and ulna were broken and much displaced, two inches above the right wrist. The head of the radius was broken near the left wrist. One or more ribs were broken, on the right side, wounding the pleura and producing emphysema of the parietes of that side. There was distinct crepitus over the right trochanter, with eversion of the foot, and shortening to the extent of an inch. The shock was not very severe, and the pulse 88, and of fair strength. He suffered most from efforts to cough, which gave much pain, and a binder was applied to support the chest.

He was seen three hours after the accident by Dr. H. G. Clark, in consultation. The patient was etherized, fragments of bone were removed from the elbow, and dislocations reduced. An internal angular splint was loosely applied to the right arm, which was supported by a pillow, and water-dressing applied. Straight splints were used for the wrists. Extension was applied to right foot by a brick attached in the usual manner to the leg, and counter extension by strips of sheets, on each side of the perinaeum, fastened to the head of the bed. Beef-tea and brandy were ordered in moderate doses. The reaction came on in the evening. Pulse 110. Brandy discontinued.

April 15th.—Has slept none, and pulse 120. Hip very painful, with constant tendency to eversion, which was counteracted by a broad strip of plaster, around the thigh, attached to a weight hanging over the left side of the bed. No extension of emphysema. Slight bloody expectoration. Morphine, gr. $\frac{1}{2}$, at bed-time.

16th.—Slept six hours. Pulse 116, full and quick. Breathes more easily.

17th.—Slept well. Eats well. Pulse 128.

18th.—Pulse 112. Respirations 28. Elbow swollen.

19th.—Swelling and discoloration in right groin noticed.

20th.—Pale and chilly. Emphysema disappearing. Bears extension well. Pulse 100. Wound in elbow discharges freely.

29th.—Complains of severe stinging pain in second, third and fourth fingers of right hand. Pulse 100. Ordered quinine, gr. i., three times a day.

May 10th.—Etherized, and two openings made in the elbow, discharging a small quantity of pus. Poultice ordered.

29th.—Etherized, and a free opening made near inner condyle. Considerable pus and a small fragment discharged.

June 1st.—Weak and irritable. Pulse 120. Most of weight removed from leg. Nourishing diet urged on him.

15th.—Doing well. Encourage motion of leg; to be kept flexed part of time by means of a sling.

26th.—Sits up, and walks a little.

July 14th.—Three months after the accident. Walks with a slight limp only. Perfect motion in left wrist. Good union of radius and ulna of right arm, with increasing motion of the hand. Elbow stiff, and fixed at a convenient angle.

This patient eventually walked without lameness, and recovered a slight motion in his elbow.

THE ARTIFICIAL PRODUCTION OF AROMATIC SUBSTANCES.

THE following remarks upon the artificial production of aromatic substances are extracted from one of the Cantor Lectures, delivered by Dr. F. Crace Calvert, at the Society of Arts:—

The artificial production of this class of substances is a subject which must excite interest, for it has reference to many of the perfumes which we use every day for our toilet, and which contribute to the enjoyment we feel when admiring certain flowers. Therefore I shall begin by stating that chemists have produced artificially that fragrant odor which is given off by an all-admired flower called the lily of the valley, and which perfume is identical with that given off by the small yellow flower of the *Spiræa ulmaria*, which grows and perfumes the banks of streams winding through our valleys, and which aromatic principle chemists have also traced in a most odoriferous bean, the tonka bean. What enhances the interest in the artificial re-production of this aromatic compound is, that it is derived from a white crystallized substance, called salicine, having a most bitter taste, which is obtained from the bark of the willow or poplar, trees which are often the companions of the lily of the valley and the *Spiræa ulmaria*.

To extract salicine from the bark of the willow or the poplar, it is simply necessary to boil it in water, to add a little oxide of lead so as to separate the resinous and other matters in solution, then to concentrate the liquors, when, on cooling, they yield salicine.

Let us now follow the transformations which this substance—which has been employed as a substitute for quinine in cases of intermittent fevers—undergoes, to become converted into a product identical with that which characterizes the perfume of the lily of the valley, the *Spiræa ulmaria*, and the tonka bean, and which substance has received the

name of salicylous acid. To prepare it from the *Spiraea ulmaria*, or the lily of the valley, it is necessary to boil the flowers with a little caustic potash, which unites with the salicylous acid; and in removing that compound from the aqueous solution it is easy to obtain the acid above mentioned. To prepare it artificially from salicine, one part of that substance is mixed with one of bi-chromate of potash, 20 of water, and $2\frac{1}{2}$ of sulphuric acid. On heat being applied to the mixtures salicylous acid distils, which, being insoluble in water, is easily separated, and its powerful fragrant odor easily appreciated.

But there is another series of facts connected with this subject to which I desire to call your attention, and which are linked together by the interesting substance, salicylous acid. Thus, when this organic compound is heated with potash, it fixes two proportions of oxygen, and becomes transformed into a substance called salicylic acid, which, when liberated from its combination by means of hydrochloric acid, separates under the form of white and well-defined prismatic crystals, perfectly inodorous, and soluble in water and alcohol. If to this acid we now add wood-naphtha and a little sulphuric acid, they yield, on the application of heat, a most fragrant perfume, which is identical to that imported at the present time in large quantities from America, under the name of essence of winter-green, or essence of *gaultheria*, extracted from a small heath plant, or *Erica*, which grows wild on the sides of the mountain rocks of New Jersey.

The essence of winter-green offers to chemists, and to us this evening, a peculiar interest, owing to the fact that it is a natural ether, that is to say, a compound of salicylic acid united with the oxide of methyl; whilst all the other essences and perfumes are hydro-carbons, to many of which I called your attention in my last lecture, as well as to some other hydro-carbons, containing in addition a small amount of oxygen. When the discovery was made by Cahour that the essence of *gaultheria* was a natural ether, the chemical world became so excited, that they dreamt that they were at once going to reproduce easily every known perfume; and although this has not been realized, still many interesting data have been added to our store of knowledge. As an example, I can cite that if the essence of *gaultheria* is heated with caustic baryta it unfolds itself into carbonic acid and into a substance called anisol, which has a highly pungent odor, and quite different in its properties from that of the substance employed to generate it. On the other hand, if anisic acid, which is easily obtainable from the essence of aniseed, is acted upon in the same way, anisol is also produced, thus showing how closely allied, in a chemical point of view, are the essences of *gaultheria* and aniseed.

Let us proceed to examine together a substance which of late has been much used as medicine, called valerianic acid, and which offers much interest, owing to the various wide and curious sources

from which chemists have been able to extract it. To prepare valerianic acid from the roots of the *Valeriana officinalis*, all that is required is to split the wood into small pieces, to place it with water in a retort, and on heat being applied the water distils, and there floats in it an oily matter, which is valerianic acid, separated easily. This acid can also be obtained by the same process from the guelder rose or water elder, as well as from the repulsive product called oil of porpoise, the odor of which is in a great measure due to valerianic acid. It has also been extracted from various classes of cheeses by my learned master, M. Chevreul, who has also traced its presence among the products which result when animal matter is allowed to enter into slow putrefaction.

But what are especially important are the means by which valerianic acid can be artificially produced. I shall begin by stating that when the essence of chamomile is allowed to fall, drop by drop, into melted caustic potash, it is oxidized and converted into valerianic acid. Another interesting production of this acid, is one which has been followed of late years in order to obtain it in sufficient quantity to meet the demand which has arisen in consequence of its therapeutic properties, and its employment by medical men, and this is its artificial production from fusel oil, a product which is obtained during the rectification of raw spirits. In fact, it is the entire removal of this substance through distillation that constitutes the art of the rectifier; for by so doing he obtains purer alcohol, which has an agreeable flavor, and which does not injure man but when taken in excess, whilst if it contains the fusel oil, not only is the taste of the alcohol rank and disagreeable, but it appears to have a peculiar irritating action on the nervous system.

Among the various methods which have been devised for converting fusel oil into valerianic acid, the most effective, I believe, consists in mixing fusel oil with bi-chromate of potash and sulphuric acid, when by the action of the oxygen liberated from the bi-chromate of potash through the action of the sulphuric acid, the fusel oil is oxidized and converted into valerianic acid.

As I have called your attention to fusel oil, let me state at once that this substance, which is so repulsive in consequence of its odor, has, notwithstanding, been much employed of late years to manufacture substances used extensively under the name of flavoring essences, that is to say, essences which are used to impart the flavor of jargonel pears, as well as that of apples, to sweet drops, &c.

The first of these essences is produced by mixing together acetate of potash, fusel oil, and sulphuric acid, when the result of the operation is sulphate of potash and acetate of amyl, which compound is, in reality, the essence of the jargonel pear. To prepare that of apples, all that is required is to unite valerianic acid with its derivative, the oxide of amyl, producing the valerianate of amyl, or the essence of apple. And allow me to add, that the essence of pine-

apple is a product obtained through the oxidation of olive oil by nitric acid, giving rise to ænanthyllic acid, and that when this acid is mixed with alcohol and sulphuric acid, they produce ænanthyllic ether, called essence of pineapple. Practice and experience have gradually led to the manufacture of a large variety of these products, most of which are mixtures of various substances obtained through chemical actions, and certainly nothing can be more curious and instructive than to reflect that such aromatic flavors are derived from products which in reality have most noxious odors, and which are so repulsive in their nature that they are considered mere refuse. It is to Dr. Hoffman that we are indebted for a correct knowledge of the chemical composition of this interesting class of substances.

Permit me to dwell for a few minutes on the artificial production of the essence of lemon, now manufactured in large quantities by the process which I am going to describe, which consists in obtaining it from the essence of turpentine, substances, strange to say, differing one from the other only in the fact that one molecule of turpentine can be unfolded into two of essence of lemon. To effect this splitting (if I may so express myself) of a molecule of turpentine into two of essence of lemon, the turpentine is mixed with alcohol and nitric acid, and the mixture exposed to the rays of the sun, when gradually the turpentine unites with the water, giving rise to hydrate of turpentine; a combination of this substance with six atoms of water, giving birth to large, well-defined crystals, which are separated from the mother liquors in which they have been formed. These crystals, on being submitted to the action of hydrochloric acid, unite with the gas, and give rise to a liquid and a solid substance, which liquid portion, on being acted upon by potassium, gives birth to the essence of lemon. If, instead of operating upon the hydrate of turpentine with hydrochloric gas, we act with it at once on turpentine, we shall observe that the gas is absorbed in large quantities, and after a short time a white, solid, crystallized substance will be formed, which, on being separated from the fluid in excess, pressed between folds of paper, and then sublimated by gentle heat in a retort, yields a white, crystalline, transparent substance, whose odor is identical to that of natural camphors as they are imported, either from China or the island of Borneo, countries which chiefly supply us with that useful aromatic substance, and which is easily obtained by placing slips of wood belonging to the tribe of plants called *Laurus camphora* with water, in iron shallow vessels, and placing over them metallic cones filled with rice straw. On the application of heat the camphor is vaporized, and becomes condensed under the form of small crystals, which attach themselves to the rice straw, from which they are easily removed, collected, and shipped to this country, where they are introduced in large glass vessels, and which are in their turn placed in heated sand baths, where the camphor volatilizes, and is

re-condensed on the colder parts of the glass vessels, forming large, solid, white cakes, so well known to us as refined camphor.

There are few substances in the vegetable kingdom which have excited more interest in the chemist's mind, and have called forth more researches, than a seed, the products of which are extensively used in every-day life, and whose composition is still so little known by the public—I mean the seed of the mustard plant. It is necessary that I should state there is a marked difference between white and black mustards, notwithstanding both of them contain starch and a fatty matter. Thus, when white mustard is mixed with lukewarm water, the elements of the seed appear to undergo no modification; whilst if black mustard seed is placed under similar circumstances a most powerful and pungent odor is produced, arising from the generation of the essential oil of mustard. As this oil is the result of the action of an albuminous ferment, *mysorine*, on a substance called *myronic acid*, unfolding it into an essential oil, and as this chemical phenomenon is prevented by a temperature of 212° , it therefore follows that whenever it is desirable to produce this oil, which acts as a powerful caustic on the skin, it is necessary that the temperature of the water with which the mustard is mixed should not exceed 150° , for without this precaution the ferment *mysorine* is coagulated, the chemical action ceases, the essential oil is not produced, and thus the benefit which might result from the application of such a substance under the form of a poultice is not attained. It is no doubt with a view of avoiding the evil results which often occur when mustard seed is used as a poultice, that of late the essence itself has been patronized by medical men.

Among the numerous transformations which chemists have succeeded in effecting in connection with the essence of mustard, the most interesting is its conversion into essence of garlic, which is most easily effected under the following circumstances, namely, heating essence of mustard with potassium, when a certain amount of carbon, sulphur, and nitrogen are removed, which unite with the potassium to form sulpho-cyanide of potassium, the remaining elements being essence of garlic, which, being volatile, is easily diluted.—*London Chemist and Druggist*.

Photographing upon Silk.—A process has been devised at Lyons, the great silk manufacturing locality of France, for photographing upon silk, linen, &c., so that persons, instead of marking their initials upon the corner of a handkerchief, can have their photographs taken upon the fabric. In the silk shops various articles are exhibited, photographed with names, portraits, and fanciful devices. The pictures are not injured by washing, and the process is said to be easily and rapidly effected.—*American Druggists' Circular*.

Bibliographical Notices.

Eléments de Pathologie Interne et de Thérapeutique (Principles of Internal Pathology and Therapeutics). Par NIEMEYER, Professor de Pathologie de Tubingue.

[Concluded from page 463.]

NIEMEYER admits that in persons who have had but one or two attacks of gout often no deposit is found in the joints, while true gouty deposits occur in the uriniferous tubes of the kidney and in the skin very frequently, and that gout in the stomach, heart and brain are real diseases. Strictly speaking, the muscles are the organs of motion; but not even Niemeyer would contend that gout is a disease of the muscles.

But it is unnecessary to prolong this discussion, as it answers no useful purpose, and one example is sufficient. The somewhat arbitrary mode of classification may be a defect at which the enthusiast of theories will cavil, but, for our own part, we prefer an author, who, like Niemeyer, in view of the imperfection of our science, avoids a too strict attempt to draw lines merely imaginary.

We notice the absence of the tables of comparative or differential diagnosis (which add so much to the practical value of Valleix's Guide, for example), and of the summaries of treatment. But this is not a book to be hastily caught up; it requires to be thoughtfully studied. Yet it is neither dry nor exceedingly profound. It aims to look just so far into the subject of internal pathology as the present state of medical science in Europe will permit us to see clearly, and no farther.

There is little to be said about the author's treatment. It is distinguished for simplicity, independence and good sense. It belongs to no particular school. Niemeyer regards medicine as an art to be practised as well as a science to be studied. He shows the direction in which we are to act rather than the means, pointing out the indications of treatment, and never despairing of our being able to fulfil them. It is a hopeful book for the art as well as for the science. He believes in "self-limited diseases," yet not the less carefully does he indicate the remedies and the doses, and what these remedies may be expected to effect.

Perhaps we cannot better complete this notice, nor convey an idea of the scope of this work, than by giving in a rapid *résumé*, or *coup d'œil*, a view of the author's treatment of a subject which has of late occupied periodical medical literature almost too exclusively.

Cholera, like other diseases in this volume, is discussed under four heads or chapters:—1st, Pathogeny and Etiology; 2d, Pathology; 3d, Symptoms and Course; 4th, Treatment.

Diagnosis, prognosis, prophylaxy, &c., are not separately considered, but are brought under one or another of the above heads.

Under Pathogeny and Etiology we find:—

"Probably always, certainly most frequently, it is the dejections of persons infected with cholera poison which serve to transmit the disease to others." "While on the one hand the closest contact between the infected and the healthy is insufficient to produce the disease in the

latter, it is certain on the other that the disease can only be propagated by those who are infected." "It would seem that the virus is not found ready formed in fresh cholera stools, but that it becomes developed therein after a time; and, perhaps, special conditions are required to favor this development."

Under "Anatomic Pathologique" is a superb chapter detailing the *post-mortem* appearances.

The bodies retain their heat remarkably, and sometimes the temperature has been found to rise after death. A very remarkable occasional phenomenon also, is the contraction of the muscles of the corpse, causing the body to move and the fingers to close.

If death has occurred at the height of the disease, the aspect of the body is very characteristic. The closed fists, flexed limbs, and prominent muscles, give it a very menacing attitude—it looks as though it were fighting. The cadaveric rigidity is overcome with difficulty. The features are scarcely recognizable. The sunken eyes, half open and dry in their shrunk orbits, the peaked nose, the cyanosed flesh, and the par-boiled and blue fingers, are all characteristic.

The internal appearances are very minutely described, but are too familiar to be repeated here. The most important anatomical change in the interior of the intestines is the enormous elimination of epithelial cells. The villi of the intestines are stripped of their covering; in certain parts the epithelial layer is simply raised up by serous exudation and still adheres loosely, but in most places it is thrown off, and is seen lying in strips upon the mucous coat of the intestine, or forms the white flocculi floating in the rice-water fluid. He compares the mucous membrane of the intestine of a cholera patient to skin deprived of its epidermis by a blister. "The characteristic modifications, present in patients dying of cholera at its height, consist essentially in the alterations produced by extensive intestinal catarrh, together with the throwing off of cellular epithelium and an excessive transudation of fluid through the intestinal mucous membrane, and in a considerable thickening of the whole mass of the blood."

Under "Symptoms and Course," he says that he considers it an error to suppose that fear induces cholera. The period of incubation he places at from thirty-six hours to three days.

The premonitory diarrhoea is often neglected, even by those who run to consult a doctor for their slightest ailments. These copious watery stools, more or less frequent, but usually without pain or unhealthy color or odor, he considers to constitute the first stage of the disease, or more properly its lightest form.

When violent vomiting comes on, accompanied by rice-water discharges, we have to do with the very grave form, although the thickening of the blood is not yet very marked. This constitutes cholérine (*forme éréthique de choléra*). The discharges are colorless, simply because of the excessive exudation of serum by the intestines, and not because of the failure of the products of excretion or secretion. "The microscopic and chemical examination of this serum shows it to be very poor in albumen, but rich in salts, especially common salt, and that the flocculi are composed of coherent strips of intestinal epithelium of young cells and detritus. Other not constant elements are, crystals of phosphate of ammonia and magnesia, particles of food, parasites, vibrios and cryptogams, and often blood cor-

puscles." "This condition of the dejections, recognized as pathognomonic by authors, explains all the other symptoms of cholera. The phenomena produced in the intestines by the infection of cholera can be justly compared to those which appear in the skin when a blister is produced." The thirst which accompanies the characteristic stools is the result of the subtraction of so much water from the blood, and the same fact, together with the failure of the heart's action, explains the stopping of the urinary secretion. Cramps are not pathognomonic, as they occur in cholera morbus as well as in Asiatic cholera.

The stage of collapse (*forme asphyxique*) of cholera results from heightening of the diseased process in the intestines. He says that nearly all experienced physicians to-day deny the existence of "dry cholera." But many still believe that the significance of the intestinal affection is no greater than that of the typhoid intestinal lesion in typhoid fever.

Then follows a graphic description of the clinical phenomena. He believes that the collapse, or algid stage of cholera is produced precisely as somewhat similar phenomena are in the case of an extensive burn upon the skin. Serum is poured out in enormous quantities, whence result thickening of the blood, dryness of the tissues, and stoppage of all the secretions. The arrest of the heart's action is due to a variety of causes--partly to shock, especially coming from intestinal lesion, a similar phenomenon being remarked in cases of perforation. It is very likely due in part to arrest of capillary circulation in the heart itself, the result of blood thickening. This may also account for the sense of oppression and anguish which marks the algid stage, there being no movement of blood in the pulmonary capillaries. A sudden cessation of the stools must not be mistaken for a favorable symptom, as it is not seldom the result of paralysis of the intestines. Death in cholera resembles a gradual extinction. The absence of the usual tracheal râles is remarkable.

In cases of recovery, the stools become less copious and frequent, and ingested liquids cease to be immediately rejected by the stomach. The capillary circulation re-appears, and the pulse. Convalescence may follow at once. And again the author compares the symptoms to those which appear when the skin is recovering from a blister. But often recovery is incomplete or typhoid cholera appears. This form is almost exclusively the sequel of collapse, never of the simple diarrhoea, and very seldom of cholera. But let us pass to "Treatment."

Niemeyer is an advocate of strict quarantine. All drains, cess-pools, sinks, receptacles of offal or manure, &c., should be carefully cleansed and purified in time of cholera. Especially should no cholera dejections be allowed to find their way into the common sewers. Those who can, had better run away. Those who cannot, must avoid strange privies. A physician should warn all his patients to send for him if they have even an approach to a diarrhoea, to rest in bed until he comes, and to drink some hot coffee and take some anti-cholera mixture.* A brisk sweat sometimes averts an attack, and there is great danger in a sudden arrest of the perspiration.

* The Russian drops, for instance, containing æth. tinct. of valerian, wine of ipecac, Sydenham's laudanum and essence of peppermint.

The indication in cholera is to replace the water which the blood has lost. Also, the symptomatic treatment should keep in view first of all to combat the intestinal affection. A third task is to overcome the tendency to paralysis of the heart. If, after repeated doses of Dover's powder (or laudanum, with some ethereal preparation, or mucilage, if you please), the diarrhœa persists and becomes decided, the patient visibly failing, skin growing cold and dejections losing color, in such a case opium is *contra-indicated*. In this stage, cold compresses constantly renewed upon the abdomen, and grain doses of calomel every hour, have proved serviceable in Niemeyer's experience. Bits of ice, or frequent sips of ice-water fulfil, as far as possible, the indication for supplying water to the blood. The pulse diminishing and the patient sinking, foaming champagne, or rum, or arak and water, are far preferable to any other stimulants.

It will be found a good plan to substitute occasionally a few cups of very strong hot coffee for the ice-water or broken ice. This will ordinarily be rejected by the stomach, but not until its effect has been produced in strengthening the pulse and elevating the temperature of the surface. He rejects sinapisms as liable to abuse, and advises rubbing the cramped limbs with essential oil of mustard.

Great circumspection is necessary in the administration of food during the period of reaction.

The notes of Dr. V. Cornil are deserving of special notice. They are valuable additions to the text of the work.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 10, 1867.

THE MILK CURE.

SUCH is the title of a novel method of treating disease, which is described in a paper by Dr. Philip Karell, of St. Petersburg, which we find occupying a prominent place in several recent European medical journals. Singular as it may seem, the author claims, that by the simple use of milk alone, without drugs, he has cured hundreds of cases, many of them of obstinate, protracted, chronic diseases, which had long resisted the common methods of treatment. He attributes his success to judicious use of the remedy and strict observance of method in its administration. The article we refer to was read before the Medical Society of St. Petersburg, in March, 1865, and we find it translated both in the *Archives de Médecine* and the *Edinburgh Medical Journal*; the author styles himself Physician to the Emperor of Russia.

He first gives a sketch of the opinions of medical writers from the time of Hippocrates to the present on the efficacy of milk in the treatment of numerous forms of disease. In Russia its special use under the title of Milk Cure is not new, and as long ago as 1857 Dr. Inozemtseff published a book on the subject in Moscow. Dr. Karell,

however, claims greater precision in his method, and speaks with great confidence of his results.

“With regard to my own practice,” he says, “I have, after fruitlessly trying all sorts of remedies in many chronic and obstinate diseases, at last succeeded in thoroughly bringing the alimentary canal, that seat of so many diseases, under my control. I did this by administering milk according to a new method. The results which I have thus obtained tempt me to publish my observations with reference to the efficiency of this mode of cure, provided, of course, that it be administered with method, and by a person of experience. And in the first place, then, must we attribute the beneficial influence of milk in certain serious illnesses merely to its nutritive qualities, or to some occult medicinal virtue? I cannot pronounce in favor of the one or of the other hypothesis. It must be remembered, however, that milk and chyle resemble each other very closely. After a great deal of experience, I have arrived at the conclusion, that in *all dropsies*, in *asthma*, when the result of emphysema and pulmonary catarrh; in obstinate *neuralgia*, when its causes lies in the intestinal canal; in diseases of the *liver* (simple hypertrophy and fatty degeneration), and generally in diseases where there is faulty nutrition, often a consequence of obscure sub-acute inflammation of the stomach or intestines, followed by affection of the nervous centres—in all these cases, I consider milk as the best and surest of remedies. Even in those cases where the dropsy is the result of organic heart disease, or of old-standing liver complaint, or of far-advanced Bright’s disease, I have seen very marked improvement take place, which also lasted a considerable time. But if, unfortunately, we are unable to cure organic disease, shall we not have conferred a great benefit on poor anasarcaous patients if we reduce, with a promptitude little hoped for from other remedies, the distressing symptoms of œdema?”

His method is as follows :—

“I generally commence the cure by employing milk *alone*, and forbidding all *other kind of nourishment*. I proceed with great caution in prescribing for the patient, three or four times daily, and at *regularly-observed intervals*, half a tumbler or a tumbler, *i. e.*, from 2 to 6 ounces, of skimmed milk. Its temperature must be made to suit the patient’s taste. In winter they generally like tepid milk, heated by placing the tumbler or cup in a vessel filled with hot water. In summer they generally prefer it of the same temperature as the surrounding atmosphere. They should not gulp it all at once, but take it slowly and in small quantities, so that the saliva may get well mixed with it. Of course, the milk must be of good quality. That of town-fed cows has generally an acid reaction; that of country-fed cows is better, because its reaction is generally neutral. If the patient digest the milk well, which is proved by the fæces becoming solid, I gradually increase the dose. The first week is the most difficult to get over, unless the patient has a strong will and firm faith in the cure. During the second week two ordinary quarts are generally administered each day. If the cure take its regular course, then the milk must be drunk four times daily—at eight in the morning, at noon, at four P.M., and at eight, P.M. If the patient desire it, I change the hours, but I always insist on regular intervals being observed; for the patient will think

lightly of the cure, if he be not ordered to observe some regularity while subjected to it. No confidence can be inspired, and no cure expected, if the physician says to his patient, ‘Drink milk in whatever quantities, and whenever you wish.’ ”

This treatment the author rigidly pursues for weeks, and it is only at the end of the second or third week that the patient, if he have a strong desire for solid food, is allowed a little stale bread with salt, or a small piece of salt herring. Sometimes porridge made of oatmeal and milk is substituted at this time for one of the meals of milk alone, and at the end of five or six weeks a steak or chop is allowed once daily. The author goes on to report in detail a number of cases of grave chronic disease, most of which were greatly relieved or entirely recovered under this plan of treatment. Among these we find cases of diabetes, extensive dropsy with valvular disease of the heart, diarrhoea of thirty-five years standing, with neuralgia, intermittent fever, Bright’s disease, &c.—surely a formidable catalogue! The secret of its efficacy he attributes to its power of correcting “perverse or deranged nutrition,” which, he claims, is the obstinate enemy which physicians have to combat in almost all chronic diseases. We cannot follow the author in his discussion of the indications or contra-indications of the Milk Cure, or his explanation of it. The whole paper is worthy of careful perusal, and to that we must refer our readers. It is published in the *Edinburgh Journal* for August, and the *Archives* for November, 1866.

“A Woman’s View” of “Why Not?” MESSRS. EDITORS,—I cannot refrain from expressing my feelings of thankfulness at your publication of “A Woman’s View,” in a late number of your JOURNAL, relative to abortion. Dr. Storer’s work had already been brought to my attention with—as must be the result to every right-minded man—approval; but the addenda, or rather complement, of his valuable little book, lies in that “nutshell of pertinence,” the article referred to. I lit upon your JOURNAL by the merest chance. I am on the eve of marriage myself, and though not a whit more sensual than most men, cannot be too grateful for having thus forcibly brought to my mind a view which I for one had doubtless scarce otherwise considered. I would to God that it might meet and claim the serious consideration of every man born of woman’s agony. Yours very truly,

A FIGHTER FOR THE RIGHT AGAINST WRONG.

Rapidity of Nerve Action.—Haller attempted, in reading the *Eneid* aloud, to count the number of letters which he could pronounce in a minute. Finding that he could pronounce 1500, among which the R, according to his statement, requires ten successive contractions of the stylo-glossus, he affirms that a muscle can contract and relax itself 15,000 in a minute; and as the time of relaxation is as long as that of contraction, each contraction requires about $\frac{1}{30000}$ of a minute, or $\frac{1}{500}$ of a second. From this Haller concludes that the nervous agent requires the $\frac{1}{500}$ of a second to go from the brain to the stylo-glossus muscle.—*Revue des Cours Scient.*

Successful Removal of a large Bronchocele.—Dr. W. W. Greene, Professor of Surgery in Berkshire Medical College, and in the Medical School of Maine, reports in the *Medical Record* the successful removal of a large bronchocele. The patient was a German lady of forty-five years, residing at Albany, N. Y. The tumor had existed twenty-six years, but had only become troublesome within a year and a half previous to the operation. It consisted mainly of an enlargement of the right lobe of the thyroid gland, and caused great distress by pressure on the common carotid, trachea and œsophagus. Any attempt to swallow or talk caused terrible dyspnœa. She was unable to lie down, and required constant watching during sleep to prevent suffocation. She suffered much from headache and giddiness, and could not stoop without loss of consciousness. The hæmorrhage was profuse during the operation, and the internal jugular was wounded and secured by a ligature. The patient recovered without a bad symptom, at the end of five weeks the wound had entirely healed, and the patient is now in perfect health. The tumor weighed one pound nine ounces, avoirdupois. Prof. Greene is to be congratulated on the successful issue of one of the most doubtful operations in surgery.

Recovery of Prof. Trousseau.—Some of our cotemporaries were misled by the erroneous cable despatch announcing the death of Prof. Trousseau. One of them announces an obituary notice as in preparation, and so recently as the 1st inst. alludes to his death. We stated several weeks since that his illness was slight, and the *Union Médicale* of Dec. 4th says, "the friends of M. Trousseau and all our *confrères* will receive with satisfaction the news of his complete restoration to health."

Boston City Hospital.—From the inaugural address of His Honor the Mayor, we learn that the number of patients in the City Hospital January 1st, 1866, was 117; admitted during the year, 1,432; discharged during the year, 1,263; deaths, 123; remaining January 1st, 1867, 163. Treated as medical and surgical out-patients, 1,955; as ophthalmic out-patients, 1,369.

The Marine Hospital in Chelsea.—The number of inmates of the Marine Hospital, in Chelsea, during the past year, has been 777. Nineteen nationalities, and eleven of the United States, have been represented in this number. The number of patients in the Hospital January 1, 1867, was 116. Since the establishment of the institution, 11,600 patients have been received, of whom 1718 have died.—*Daily Advertiser.*

Cholera in Great Britain.—From the returns of the Registrar-General for England, it appears that the number of deaths from cholera in England during the quarter ending September 30th, was 10,365; deaths from diarrhœa, 9,570. Of the deaths from cholera, 4,714 occurred in London, 1,872 in Lancashire, and 1,412 in South Wales. The epidemic has been most fatal on the sea-coast, in the chief ports of the kingdom. The Registrar-General for Scotland announces the

appearance of the disease in Scotland in the last week of July. The deaths in the eight chief towns during October were 219. The Registrar-General for Ireland states that, notwithstanding the outbreak of cholera in different parts of the country, the deaths registered during the quarter were 103 less than during the corresponding quarter of last year.—*Lancet*.

Retirement of Dr. Brown-Séguard from Practice.—We learn that Dr. Brown-Séguard, who had consented, when he came to Boston, to see patients twice a week at Dr. Shattuck's office, has now decided to give up altogether the practice of medicine.

Harvard Medical School.—Although the medical journals report the number of medical students at Philadelphia and New York as being below the average at the present time, the number in Boston was never so large, 303 having registered their names.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 5th, 1867.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	51	44	95
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.1	39.4	80.5
Average corrected to increased population	00	00	88.69
Death of persons above 90	0	0	0

ERRATUM.—In our last issue, page 462, tenth line from top, for "history, bibliography, symptoms," read history, bibliography, *synonyms*.

JOURNALS AND PAMPHLETS RECEIVED.—Medical Record, Nos. 20 and 21.—Medical and Surgical Reporter, Nos. 23-26.—Buffalo Medical and Surgical Journal for December.—Chicago Medical Examiner for December.—Cincinnati Journal of Medicine for December.—Cincinnati Lancet and Observer for November and December.—Medical Reporter, Nos. 19 and 20.—Detroit Review for November.—Nashville Journal of Medicine and Surgery for December.—Richmond Medical Journal for December.—Medical and Surgical Pioneer, Kansas City, Mo., for November.—New Orleans Medical and Surgical Journal for November.—Pacific Medical and Surgical Journal for December.—L'Union Médicale, Nos. 140-151.—London Lancet (reprint) for December.—American Journal of Pharmacy for November and December.—Chemist and Druggist for December.—Journal of Materia Medica for December.—Dental Cosmos for December.—Dental Register for December.—University Journal of Medicine and Surgery, Nos. 6 and 7.—American Eclectic Medical Review for December.—Boston Journal of Chemistry and Pharmacy for December.—The Herald of Health for December.—Hall's Journal of Health for January.—Phrenological Journal for January.—Insanity in its Medico-Legal Relations. By William A. Hammond, M.D., &c.—Annual Report of the New England Hospital for Women and Children.—Thirtieth Annual Report of the Officers of the Vermont Asylum for the Insane.

MARRIED.—At Waltham, Jan 1st, Dr. L. D. Frost, late of the U. S. Navy, to Miss Clara M. Newhall, both of Waltham.

DIED.—At Baltimore, Jan. 2d, of pneumonia, John C. S. Monkur, M.D.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 5th, 95. Males, 51—Females, 44. Accident, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 3—burns, 1—cancer, 1—consumption, 20—convulsions, 4—coxalgia, 1—debility, 3—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—drowned, 1—erysipelas, 1—scarlet fever, 5—disease of the heart, 4—infantile disease, 3—insanity, 2—jaundice, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 8—marasmus, 2—old age, 1—premature birth, 2—smallpox, 3—disease of the spine, 1—thrush, 1—tonsillitis, 1—unknown, 8—whooping cough, 1—inflammation of the womb, 1.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 19—between 40 and 60 years, 16—above 60 years, 15. Born in the United States, 60—Ireland, 23—other places, 12.

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No. 25.

SPASMODIC ASTHMA.

By A SUFFERER.

[Communicated for the Boston Medical and Surgical Journal.]

SIR JOHN FORBES has said that it is the duty of physicians to place in a more prominent point of view the hygienic treatment of disease; that this system is founded on an inquiry into the remote and exciting causes of disease; that it does not exclude the use of drugs, but regards them, generally speaking, as subservient to hygienic means—such as the regulation of the diet, temperature and purity of the air, clothing, bodily exercise, &c.

The treatment of spasmodic asthma, as laid down in most of the articles on that subject, is principally directed to the remedies thought useful during an attack, and for the improvement of the general health of the patient in the interval; very little is said about the manner of life of the patient and of the exciting causes of attacks in those predisposed to it. A man with the asthma is not only a great sufferer himself, but his labored breathing distresses all those around him, and in a great degree unfits him for bodily or mental effort. By great carefulness and attention, combined with an accurate knowledge of the exciting causes of the spasm, an asthmatic, though he may never be free from a liability to the disease, may live with tolerable comfort to himself and pursue without serious interruption many of the occupations of life. An endeavor to contribute something to this necessary hygienic knowledge, and ward off the trouble so hard to bear and so difficult to relieve, is the object of this article.

The season of the year has a great effect upon this complaint; the predisposing cause is more powerful at some periods than at others, so that the exciting causes require to be more carefully avoided at those times. This disease is irregular in its effects upon different individuals, so that each case requires a careful and long-continued watchfulness on the part of both physician and patient. In this, more than any other disease, things that are usually considered trifles will counteract the best treatment. A man might take all the

best remedies prescribed by the most judicious physician for the asthma, and they will not benefit him if he sleeps on a feather bed in a close room at night.

In the first place, attention to diet is important, particularly as regards quantity and time of taking food. But little food should be taken after dinner. Suppers are always dangerous to an asthmatic, particularly when taken just before retiring. Some articles of food the experience of particular individuals has taught them to avoid. I knew one gentleman who never could eat a cracker without exciting dyspnoea, though bread had no such effect; these articles such persons should always avoid. Coffee, when taken strong and hot, without sugar and milk, is an efficient remedy during an asthmatic attack, and may be drank with advantage daily. Wine and spirits, taken in the evening, generally have a bad effect, and should it be deemed necessary to take any stimulant, Jamaica rum or whiskey, taken with the dinner, is the best. Brandy is almost always injurious in this disease. Some authors advise a strictly farinaceous diet; whether or no this will prove beneficial, each patient must ascertain for himself, should it be deemed advisable by his physician to try the experiment. There is a gentleman residing in this city who for many years was a sufferer from asthma, to such a degree at times that he has been unable to lie down for three consecutive nights; he gave up the use of animal food, because he suffered from headaches after using it. In time his asthma diminished, and at length left him, so that he has not had more than one or two accidental paroxysms for twenty years. Whether his diet benefited him or the disease died out, which it very rarely does, cannot of course be determined with any certainty; but the case favors the trial of this kind of food by those who would not consider the constant remedy worse than the occasional disease.

The clothing should be warm, including a complete suit of flannel or thick silk, to guard, as far as may be, against the sudden and severe changes which we occasionally have in this climate.

Attention to diet and clothing is not sufficient for an asthmatic; this care only places him in as favorable circumstances as may be to breathe easily, provided he does not encounter any of the many accidents which beset his path; any one of these may at times bring on a spasm of the bronchial tubes, and destroy his comfort for hours if not for the day.

First of all, dust is dangerous, more particularly house dust; that of the streets is more harmless, because not so fine. But the dust from disturbing a feather bed, particularly if it has seen years of service, or from a carpet just swept, is to many a sufferer a sure provocation of trouble. Equally injurious is the dust from hay and straw, or that produced by cleaning horses. Almost every asthmatic has some idiosyncrasy in this respect, so that particular odors or dusts affect him, whilst it may not others; as, for instance, some can-

not stay in a room with comfort where ipecac has been used in a powdered state, though others equally liable to asthmatic attacks may not be at all affected by this drug. Of course, an intelligent patient will carefully avoid, as far as possible, what he has once or twice found to be injurious to him; but unhappily there are many sufferers who seem incapable of distinguishing what it is that is troubling them, and they more particularly need the careful and minute directions of their physician. There are other circumstances, however, which will seriously affect the breathing of an asthmatic, which he cannot control—such as a sudden and severe fall of the temperature. Let a man subject to this disease go out from a warm house in the morning into the air with the mercury near zero, and he will not have gone far before his respiration will be seriously impeded, particularly if the day before was mild. To remedy this he should wrap a woolen comforter over his face and nose, so as to warm the air he inspires. Should the cold weather continue, the same person may on the next day experience no inconvenience from it. The night air in winter often affects a patient, even when he has been well during the day; the woolen comforter relieves this, also, with great certainty, better even than a respirator. If it can be done, let your patient ride or drive as much as possible, instead of walking. Riding or driving in an open vehicle gives positive relief to an asthmatic, even while suffering from the paroxysm. Mrs. Sigourney, in her “*Past Meridian*,” gives an account of the Rev. Dr. Chapin, of Rocky Hill, who was a sufferer from youth from the asthma, and mentions incidentally that he frequently rose in the night and rode miles to parry the sense of suffocation. There are gentlemen in this city who can ride or drive for hours in our fall and winter with pleasure and comfort, who would look upon a walk around the Common at times as almost an impossibility.

If it is necessary for a person subject to asthma to go abroad on a cold, dry day, let him ride if he can; if not, let him at any rate protect his lungs as far as possible from the cold air, and he will avoid many a distressing paroxysm.

But, after all, the night is the time most dreaded by the asthmatic; so many times has he gone to bed apparently well, with no apparent catch in his breath, and so many times after dreaming a dozen times over the same wearisome dream, turning from side to side to get relief, has he finally been aroused to the painful conviction that his distressing malady is upon him, that he is apt to think that all precautions are useless and unnecessary. Where, however, a patient is able to arrange his sleeping room properly, he will avoid many attacks, and the severity of those he does experience will be much alleviated. His chamber, which he had better occupy alone, should be of good size, provided with a fire-place, the chimney of which should remain open always; and he should, if possible, have a register, such as is used for admitting the heat from a furnace, let into the flue of the

chimney near the top of the room. Persons in good health would derive an advantage from this last precaution, in the superior purity of the air they would breathe during the night. During the summer, when the windows of the chamber are open, the door need not necessarily be open, though even then it is better that it should be; but in winter an open door is a great safeguard—for the patient it is almost indispensable. The bed should be entirely free from feathers. Mattress, bolster, pillows, all should be of good curled hair. A large, square pillow, raising well the head and shoulders, is much better than a small, long one. The bedstead had better stand out into the room, not be placed against the wall, or in any alcove or recess which will in the least prevent the access of fresh air to its occupant. If you make this chamber moderately warm by furnace heat from the entry, or by an open fire not made of anthracite coal, everything has been done to ensure for the asthmatic a comfortable night. If he has eaten but sparingly since his dinner, and then in the early evening, he will probably sleep well.

Another element of discomfort to the asthmatic that should be mentioned is change of place. He never sleeps so well as in his own room; consequently is a poor traveller, principally because it is difficult to find elsewhere the comforts and conveniences adapted to his own case with which he has surrounded himself at home.

Smoking a cigar during a paroxysm will often give relief, especially if the patient inhales the smoke, after it has passed from the mouth, with moderation. For this purpose the cigarettes composed of tobacco and stramonium give decided relief. Since the discovery of ether as an anæsthetic it has also been employed with marked success for the relief of asthmatic attacks.

TREATMENT OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.]

By T. W. SHASTED, M.D., of Pittsfield, Ill.

As no uniform, efficient, and generally accepted plan of treating cholera has been presented to the profession, the following course is suggested for *trial*. The cause of this disease being entirely unknown, the treatment must necessarily be empirical. If the disease shall be found to depend upon cryptogamic spores or animalculæ, the removal of the affection may become, by learning how to destroy the cause, easy, simple, and uniformly successful, or we may learn that the cause cannot be destroyed any more than the bots in the horse. If fungoid spores really be the cause of congestive chill and other malarial complaints, it is well known that the cause may be destroyed or rendered inoperative by *quinine*. Not by one-grain doses, but by giving within a short period and before the accession

of the paroxysm, from twenty to sixty grains. It will be seen that it is not only necessary to give the proper remedy, but also the proper dose at the proper time, or no perceptible benefit follows. In cholera the onset is often more violent and its destructive effects more rapid, hence the necessity of treating more promptly and vigorously. That the indications for treatment of the two diseases are nearly the same cannot be questioned. To produce a powerful specific impression upon the nervous centres, to sustain the calorific functions, to maintain the action of the heart, and perhaps in every case of cholera, and in many cases of congestive chill, to suppress the intestinal serous effusion, are therapeutic indications equally important in the two diseases. If these indications be fulfilled, can the patient die? In violent inflammation of the brain, the patient must be quickly relieved, or he will die. To break the force of the disease, so that the patient will not die of the primary affection, is the goal sought in therapeutics; for this being effected, recovery will usually take place without further treatment. By active treatment strike out a link in the chain of choleraic symptoms, and the patient will recover.

The main indications are:—1st, to stimulate the nervous centres; 2d, to sustain the calorific function; 3d, to maintain the action of the heart; 4th, to suppress the intestinal effusion; 5th, to supply the circulation with a fluid approaching in quantity and capable of taking, to a certain extent, the place of the serum effused from it; 6th, to stimulate the hepatic function; 7th, to control cramps. The first indication is to be accomplished by quinine introduced into the system, by *hypodermic injection*, early in the disease, and sufficient in amount to promote, most promptly, cinchonism. Perhaps from twenty to sixty grains will be required, the whole amount injected at once; or ten grains, frequently repeated until the desired effect be produced. In collapse, small doses will be proper (as a large amount would tend to add to the depression), aided by suitable doses of strychnine. 2d. By the *inhalation of pure oxygen*. If it should prove too stimulating, the patient should be allowed to breathe more or less air along with it. It may be used in any stage of the disease, and will be found to have a most powerful effect in maintaining and restoring the animal heat, and in removing the constantly accumulating carbon and other noxious elements. It should be used early, but it is especially useful in the stage of collapse. Brandy, sulphuric ether and ammonia, may be given as the urgency of the case may require; also, the hot mustard bath, hot mustard draughts to the spine, abdomen and extremities, and artificial heat of various kinds. These remedies also meet the third indication. 4th. By the hypodermic injection of laudanum or solution of morphine, early administered and in full doses. Besides its astringent effect, it controls the nervous and gastric symptoms. Full doses of sugar of lead by the mouth, and tannic acid by the rectum, should be given, and frequently

repeated until the diarrhoea is completely suppressed. 5th. By the transfusion of pure water, which will be found superior to any saline mixture and next to healthy blood. 6th. By some preparation of mercury. The importance of securing a free flow of healthy bile cannot be too strongly insisted upon. 7th. By the inhalation of sulphuric ether, friction, pressure, extension, bandage and tourniquet.

It is confidently believed that the patient will not die if cinchonis and the full effect of opium are early and speedily produced, and a free flow of bile secured by the prompt administration of mercurials. It is not to be understood that mild cases will require heroic treatment.

It is believed that the inhalation of oxygen will be found extremely valuable in all cases of asphyxia from whatever cause; also in all malignant diseases, typhus and typhoid fever, and in many cases where a portion of the lung is rendered unfit for performing its function.

REMARKS UPON THE POPULATION OF MASSACHUSETTS.

By GEORGE DERBY, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

AN article on the "Increase of Population in Massachusetts," in your number of January 3d, must, I think, have led many readers to ask themselves whether it is possible that our Anglo-American race is really so likely to be overwhelmed, if not completely extinguished by the superior fecundity of the foreigners who have come among us. If these statements are strictly correct, we are certainly doomed. In point of fact, however, I believe they are in many respects erroneous. As an instance of this, I will mention the statement that more than thirty towns, in which few or no foreigners have settled, report no births in 1864 and 1865. In 1865 every town in the State reported births. In 1864 every town but one reported births. The single exception was a town of less than four hundred inhabitants, and curiously enough it is immediately followed in the Registration Report by another still smaller town, in which six births and no deaths are reported. That the foreigners in Massachusetts have more children born to them than the native Americans is unquestionable. Their birth-rate is known to be very much higher. What their death-rate is we *do not know*, and have no means of knowing. The returns of parentage in connection with deaths have never been compared in the office of the Secretary of State. If it should happen to be the case that the birth-rate and death-rate of children of foreign parentage are in the same ratio of excess over the birth-rate and death-rate of children of natives, we need not feel alarmed, but can only regret that the conditions under which they live are so unfavorable to the rearing of families. From overlooking the frightful mortality

among this class of children, and reckoning the death-rate of both alike, the writer assumes that scarcely one fifth of the Americans in Massachusetts are at the present time under sixteen years of age. This may be so, but it is opinion only, and not based upon any reliable data. The natural increase, or the difference between births and deaths, in the purely agricultural towns of the State having an almost purely native population, is very small, but this may be accounted for by the large emigration. Our young men leave such places and seek their fortunes in large cities, in factory towns, in the great West, in California and the mining regions, on the sea, and in every part of the world. Massachusetts men are rovers, frequently returning to marry in their native towns, but making their homes in regions where a greater field is open for intelligence and industry. How impossible it is to represent this emigration accurately by comparison of the numbers returned by the United States census as natives of Massachusetts settled in other States! All who have gone out of the Union must necessarily escape enumeration. An argument founded partly upon established facts, and partly upon mere conjecture, and the two inextricably mixed, must be regarded as unsound. We cannot help believing that certain preconceived opinions as to the ill health and immorality of American women have influenced the mind and unconsciously disturbed the judgment of the writer of the article in question.

Is it not true that, as recently stated in an article in the Medical Journal, the Jews have never been a prolific people, and yet have retained their existence?

Is it not also true that the higher varieties of the animal kingdom are, as a general rule, not prolific?

Is not the fecundity of communities inversely as their intelligence and the activity of their minds?

From such considerations is there not still hope for the continued existence of the descendants of the Pilgrims?

Boston, January 12, 1867.

POISONS WRONGFULLY ADMINISTERED.

By WM. M. CORNELL, M.D., of Boston.

To the Editors of the Boston Medical and Surgical Journal.

GENTLEMEN,—In the number of your JOURNAL for Nov. 22d, 1866, I read with interest an article on *Haschisch Candy*. Your remarks were very timely, as this kind of "candy" has recently come into very general use; and especially as many young persons and children use it who have no knowledge of its deleterious effects.

Whether the good story which you quoted from Aladdin Abusha be true or false, or, like the manner related formerly of collecting

the resin of the cannabis Indica, by persons clothed in leather running among the plants, and then scraping off the resinous product for medicine, as stated in the United States Dispensatory, which Dr. Wood, in a note to the last edition of that work, says, "if not quite untrue, is at least apocryphal;" one thing is certain, that this and other poisonous narcotics are doing immense harm among the people. Hence you have not lifted the warning voice too soon.

Some years ago, a gentleman came running into my office in great haste, and apparently in great anxiety, and said, "I want you to go and see my wife as soon as possible. She has been taking the haschisch, and I am afraid she has taken enough to kill her." I hastened to his house, and found his wife in the wildest delirium. She was running from one part of the large room to another, clapping her hands, singing, shouting, looking up to the ceiling, and jumping as though she expected every moment to "go up." I said mildly, "please sit down." "How can I," said she, "when I am going? oh! I am going, going up." At length, by telling her "I would go up with her if she would drink with me," she took a glass of brandy. Then she seemed a little less phrenzied, but still was going up every few moments. After a cup of strong coffee, and an hour's quietness, the effect of the haschisch passed off, and left her in a debilitated state. She was a woman of very slight figure, naturally nervous, exceedingly pleasant and agreeable in conversation, of a very excitable temperament; and, on the whole, just the last case in which haschisch should be taken.

While on this subject, I will refer to one or two more cases of the use of the powerful narcotics which are scattered broadcast over the land by promiscuous sale.

Fifteen years ago, I had a patient in this city affected with nervous dyspepsia. She was under my care for two or three years, and gradually improved. One day she brought me a box of pills, and said: "I saw an advertisement that these pills would cure nervous diseases. I wrote to the advertiser, in Brooklyn, N. Y. I think it was by some 'retired clergyman,' or possibly 'old Dr. James, whose sands had nearly run out.' The advertisement said the recipe would be sent on the reception of a stamp. But, instead of the recipe, came a letter stating that he could furnish the pills cheaper than any other one, and would send a box for one dollar." She sent the dollar, and here was the box. But, she did not dare to take them. "Had she better do it?" This was the question. Of course I said, no. She did not take them, and escaped the fate of another of my patients, who did take them.

This was an epileptic, from the western part of the State. He had been under my care for some time; thought he improved somewhat, but did not recover. He sent for and obtained three boxes of these pills. He had taken two, and commenced the third, when delirium came on, and he died.

Each pill was found to contain an enormous dose of Ignatia, or St. Ignatius's bean. The United States Dispensatory says: "So energetic a substance should never be taken without regular medical supervision, as it may prove, if abused, a most terrific poison."

CLINIC OF BERKSHIRE MEDICAL COLLEGE.

Cases reported by M. S. BATES.

[Communicated for the Boston Medical and Surgical Journal.]

Tertiary Syphilis.—Philip F., æt. 40 years; married; contracted hard chancre nearly twenty years ago. Has had a syphilitic eruption five years. The upper portion of the sternum, both clavicles, upper portion of right humerus, and the frontal bone have been carious and necrosed, and over these the soft parts were ulcerated. These portions now covered with hard, dry scabs, with a peculiar copper color and unhealthy appearance of the skin. Prof. Greene remarked that this case was a typical one; that a person having the poison once absorbed into the system is never safe from constitutional effects; and that he is not justified, when confident of having the disease, in marrying, and thus running the risk of transmitting the disease to his posterity. *Treatment*.—The indications are, to remove or modify, if possible, the constitutional disturbance and to relieve the local difficulty. *R.* Potass. iodid., ʒ ij.; ferri ammonio-citrat., ʒ i.; aq. puræ, f ʒ iv. M. S. Teaspoonful three times a day. Apply tincture of iodine externally.

Came into clinical room five weeks afterwards, complaining of severe pain in the left deltoid muscle. *Treatment*.—*R.* Potass. iodid., syr. zinzib., aa ʒ iij.; aq. puræ, f ʒ ij. M. S. Teaspoonful three times per day. Still continue the application of iodine.

Chronic Conjunctivitis.—Ellen R., æt. 5. First had inflammation of the Schneiderian membrane, which resulted in ozæna; this inflammation extended to the eyes through the nasal duct. There is an offensive discharge from the nostrils. Patient is a delicate, strumous child. Bowels habitually costive, and appetite poor. *Treatment*.—Improve nutrition and general strength. *R.* Hydrarg. cum creta, ʒ i.; sodæ bicarb., ʒ i. M. Divide in chart. No. v. Take one every night at bedtime. *R.* Acid tannic, ʒ i.; glycerin., f ʒ i. M. Apply locally, night and morning.

Came to clinic one week afterwards, with secretions from the nose almost stopped, and discharge from the eye lessened. *Treatment*.—Change from alteratives to tonics. *R.* Ferri ammonio-citrat., ʒ i.; aq. puræ, f ʒ i. M. Take a teaspoonful three times a day. Continue the application of glybero-tannin.

Came again one week later, with discharge from nose somewhat increased. *Treatment*.—Return to alteratives. *R.* Hyd. cum creta,

℥ i.; sodæ bicarbonat., ℥ i. M. Ft. in chart. No. viij. Take one every alternate night. Continue taking the ferri ammonio-citras.

Ulceration of the Os Uteri.—Mrs. O., æt. 40 years. Has children; the youngest fifteen months old. Last labor not severe, though the hæmorrhage was considerable. Has constant, dull pain in right side of abdomen, extending down to the pubes. A sensation of "dragging" since birth of last child. Has a continual discharge from the vagina, sometimes yellow, sometimes white. Digital examination showed the uterus to be enlarged; cervix and os ulcerated. The canal is so large that the finger passes readily into the cervix. *Indications.*—Relieve the congested vessels of the cervix by depletion and rest, and apply iodine to the ulcerated surface. Patient is advised to put herself under the care of a physician near her place of residence.

Inflammation of Choroid Coat and Iris of both Eyes.—R. S., æt. 60. Difficulty of vision came on gradually, with no pain, about one year ago. Can now see but little. Lymph has been thrown out, sufficient to agglutinate together the iris and crystalline lens. The vessels of the choroid coat are much congested, and the aqueous unnaturally tense and firm. Prof. Greene remarked that this form of irido-choroiditis in old people is often associated with fatty degeneration and calcareous deposit in the internal structures of the eye. There is a well-marked "arcus senilis" of both eyes. It occurs in fast liver at an early age; but usually in old age, and, as in this case, in connection with calcareous deposit in the arteries. *Treatment.*—Hancock's operation performed by Prof. Greene, with a view of relieving the tension, diminishing the engorgement of the vessels, and thus possibly improving the vision. Apply atropine to prevent further adhesion. Counter-irritation behind the ears. The patient was also put on an alternative and tonic course of treatment. *R.* Potass. iodid., ℥ ij.; syr. zynzib., f ℥ i.; aq. destillatæ, f ℥ ij. *M.* Take a teaspoonful after each meal. *R.* Quiniæ sulph., ℥ ij.; tr. ferri chlor., f ℥ ss.; syr. limon., f ℥ ij. *M.* Take a teaspoonful in water, one hour before each meal. *R.* Atropiæ, gr. ij.; aq. destillatæ, f ℥ i. *M.* Apply locally, three times a day. In one week the patient was considerably improved.

Chronic Conjunctivitis of Left Eye.—M. S., æt. 30. The eye has been inflamed about two years, sometimes being nearly well, but growing worse again. The upper lid granular, and the lower thickened by infiltration. *Treatment.*—Granulations shaved off, and the lower lid scarified. Apply glycero-tannin every night and morning. Also, give compound cathartic pills at night. Follow with potassio-tartrate of iron.

Ganglionic Tumor developed in the Sheath of the Tendon of the Flexor Carpi Ulnaris Muscle.—Theodore P., æt. 16 years. Prof. Greene remarked that these tumors impair the usefulness of the organ by pressure; as in this case, the pressure being upon the

ulnar nerve, caused partial paralysis of the fingers. Their proper treatment is either by pressure sufficient to rupture the cyst, thus forcing the fluid into the areolar tissue, or by subcutaneous puncture, allowing the fluid to escape into the cellular tissue. Tumor punctured, but the contents being thick and albuminous, it was found necessary to excise it, which was speedily done. The contents presented a peculiar appearance, being composed of angular particles, appearing like rice. The particles, sliding upon each other, gave to the touch a sense of fluctuation.

Necrosis of the Tibia of the Right Limb.—J. M., æt. 9 years. All of the tibia, except the epiphyses, was removed by Prof. Greene at the College Clinic, during the session of 1865, and at that time the fibula was softened, so as to bend easily. The patient's general health is much better at present than before the operation. Formation of new bone began in place of the excised tibia, and the healing process has gone on nicely. Now the fibula has become hardened, and a new tibia has been formed. The limb will be more or less crooked, from the fact that after the operation, and while the fibula was pliable, it was not practicable to have the child under the surgeon's immediate care, but after a while the pelvis will accommodate itself to the shortening, and the difficulty of walking will be lessened. She now can walk very well. Prof. Greene told her to use the limb as much as she wished to. Dressings now discontinued. Came to clinic one week afterwards, still more improved; can now walk with but little difficulty.

Ostitis.—Edward W., æt. 37 years. Became lame about fourteen weeks ago, and came to clinic. Has had, in the mean time, inflammation of the articular cartilages of the right knee-joint and periosteum, though at the time of the examination it did not hurt him much to stand upon the limb. Iodine was applied externally, and the patient told to keep quiet. He now has a heavy pain along the upper portion of the tibia, which is worse at night; no soreness; the limb is somewhat enlarged at the upper portion; he is otherwise in good health. The inflammation is confined to the upper portion of the tibia. *Treatment.*—Continue to apply iodine externally, and take iodide of potassium internally. Prof. Greene remarked that he thought the general symptoms were more favorable.

Came to the clinic five weeks afterwards, with the limb much more painful than before. Pressure of articular surfaces together gave great pain. Prof. Greene remarked upon the influence of arthritis upon the muscles surrounding a joint, and the value of pressure upon different tendons as a means of determining the precise seat of disease. *Indications.*—Extension and counter-extension, but the patient's circumstances rendered this impracticable. Told to keep the leg constantly packed in cold water and perfectly at rest.

Came again one week afterwards, with terrible pain in region of posterior tibial nerve, shooting down the median line. *Treatment*—

Small incision made down to anterior surface of tibia, and a trephine used to relieve the congested state of the vessels and to ascertain the condition of the bone. It was thought possible by Prof. G. that a cavity might exist there, but the exploration revealed none.

Came again one week afterwards, with knee less swollen; has felt very little pain in it during the past week. *Treatment*.—Resume the application of iodine to the limb. *R.* Potass. iodid., ʒ ij.; tinct. gentian comp., f ʒ iij. *M.* A teaspoonful to be taken three times a day.

Varicose Ulcer of the Leg.—Catherine T., æt. 33. Came to clinic about two years ago; has given birth to a child since her last visit. Ulcer very tender and irritable. *Indications*.—Rest; to bathe the limb in cold water, and apply pressure. Limb bandaged tightly from toes to knee.

Came again to clinic two weeks afterwards. Says the ulcer has pained her much on account of bandage, but the ulcer has partially healed. *Treatment*.—Glycero-tannin, with simple compress. Ulcer healed in three weeks. *R.* Acidi tannici, ʒ ij.; glycerin, f ʒ i. *M.* Apply when dressing.

Synechia Posterior.—Lorin T., æt. 54. Received an injury to the eye while driving a nail, about three months ago; the nail flew with considerable force against the right eye. The eye was considerably inflamed at the time, and was painful for some time after the injury. Was treated at the time by ice applied over the organ. Prof. Greene remarked that this man had had inflammation of the whole eye, the iris and choroid coat particularly; as indicated by the deep-seated pain, resulting in adhesion of the iris to the crystalline lens. The iris is now immovable. There is now a low grade of chronic inflammation going on. *Treatment*.—Hancock's operation advised as a palliative measure.

Graves's Disease.—Ellen H., æt. 32. Began to be in poor health about one year ago; had good health previous to that time; has been married eleven years, and had four children. Now has a sensation of fulness in the chest. When taking active exercise, gets out of breath; has a dry cough, which commenced about one week ago; pulse irregular at times; does not expectorate; pain in region of stomach and heart. Examination of heart by stethoscope reveals no abnormal sounds, but action more rapid than natural. Examination of lungs reveals nothing abnormal. There is blueness of the face; eyes more prominent than usual; fulness of the neck; some tenderness from the shoulder upwards along the neck; also habitual constipation. *Diagnosis*.—Enlargement of the thyroid body and prominence of the eyeballs, associated with functional disorder of the heart. Prof. Palmer remarked that generally, in this disease, the blowing sound of the heart was present; in this case there is none: frequently, too, there is hypertrophy of the heart; there is none in this case. *Treatment*.—The general indication is to improve the general system.

R. Aloes pulv. ʒ i.; ext. nucis vomicæ, gr. x. **M.** Ft. in pil. No. xxx. One to be taken every night on going to bed. **R.** Bismuth. subnit., ʒ iij. Divide in chart. No. xxx. One to be taken before each meal.

Pleuritis, with Tuberculosis.—Philip C., æt. 22. Has been working in a woollen mill for the past twelve years; is of temperate habits. Has pain through the back, in the stomach and side; bowels regular; does not cough; tongue coated, being yellow in the centre, and red upon the margin, showing a weak state of the system. Examination of chest reveals dulness upon the right side, over the apex of the lung; more dulness upon the lower portion of the left side than upon the right; bronchial respiration in upper part of right lung. Prof. Palmer remarked that there was probably a tuberculous tendency, as evinced by the dulness on percussion over the apex of the right lung, with the bronchial respiration; it is also evident that there is some effusion into the pleural cavity, as evinced by dulness over the lower portion of the chest, and the absence of pneumonic symptoms. **R.** Potass. iodid., ʒ iv.; syr. zinzib., f ʒ iij.; aquæ puræ, f ʒ iij. **M.** A teaspoonful to be taken four times a day.

Nasal Catarrh.—Michael B., æt. 10. Has an offensive discharge from the Schneiderian membrane; has had this affection for the past two years; sometimes has hæmorrhage from the nose; has good appetite, and seems to be otherwise in good health. **R.** Boracis pulv., ʒ i. Apply locally. Give iodide of potassium and iron.

[To be continued.]

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THE ENGLISH BENCH ON THE ADVERTISING QUACKS.

A CASE has recently been tried in London, which presents many points of interest and importance to our profession. It has served to expose the enormous system of advertising practised there, as well as here, by those whose object is to extort money by exciting alarm and offering false hopes of cure: it has shown that where a public journal speaks out in fit terms of denunciation of such a practice, it shall not suffer for its daring and honest criticism, and it has brought prominently forward the views of some eminent physicians and chemists upon the causes and treatment of consumption, which cannot fail to be of great service to the people. A Dr. Robert Hunter, claiming to have received a degree of M.D. at New York, published a book in London, which was represented as having created a profound sensation in this country, and claiming that the only method of curing consumption was by his system of inhalation. He also filled the columns of such news-

papers as the *Times*, *Morning Post*, and *Star* with advertisements containing extracts from his book, letters received from grateful patients, and the favorable notices of the American press. The *Pall-Mall Gazette* published an article on Dr. Hunter, for which he brought an action of libel against its printer, and which, as will be seen by the following extracts, was of a nature to damage his business and reputation. All that it contains is as applicable to our longitude as well, and it is a pity that its sharp lash should not have been laid as severely on the backs of the equally guilty partners in such nefarious business, its brethren of the public press, who lend their aid and share the profits.

“ There is no need of the revelations of a police court to show that the inhaling process means a process for working upon the fears of the ignorant, and for obtaining enormous fees. Men like these advertisers know well that there is one class of society which is specially open to their allurements, and at the same time supplies abundant dupes in such circumstances as to make them quite worth the expense of entrapping. Ladies and gentlemen, and the more wealthy and comfortable class of tradesmen, have, as a rule, their regular family doctors. They dislike doctors’ bills as much as any other bills, and it is sometimes hard enough to pay them. But still, until we go further down in the social scale, every man has his own doctor. Then comes an immensely numerous class, whose real education is not much above that of the actual poor, and whose experience of life is confined to a narrow range. These are the men and women who are the destined victims of the advertising doctors. They read about mucous membranes, carbonaceous blood, and tubercular deposits, and are impressed with the genius of the gentleman who can thus easily make them familiar with the profoundest secrets of science. If they have anything really the matter with them, their disagreeable sensations are at once intensified ; if they have nothing more than a cold in the head or a tightness in the chest, produced by over-indulgence at supper, Dr. Hunter’s catalogue of terrific symptoms suggests a mysterious significance to their pains. And when at last the advertisement recommends them ‘ to put their worldly affairs in order, and withdraw their minds from all earthly ties,’ for they have only ‘ a few short months of life ’ before them—i. e., unless they consult Dr. Hunter, what else remains but to go the next morning to see the pious, learned and benevolent physician, residing in that highly respectable part of London, Upper Seymour Street, Portman Square? For he is a real physician, they see, being entitled to call himself M.D., not knowing in their simplicity how degrees are, or were, sold, or rather given away, in Scotland, and how agents still advertise in London that they can get anybody any sort of degree in Germany. Once in the toils of the physician’s ‘ consulting room ’ the rest is clear. . . . Howsoever considered, the Merrick-Hunter story is a fresh illustration of the utterly unsatisfactory state of the law in the matter of these abominable advertisements. The sufferance of these lures for the unwary is a thing that ought not to be longer endured. It is obviously most dangerous for persons who know nothing of medicine or physiology to habituate themselves to the study of medical books, even of the purely professional kind. As it is, a knowledge of the human frame, of the laws of health, and the symptoms of common disease is

no part of a gentleman's or lady's education. The ignorance of well-educated men and women in matters which it is of the utmost practical moment that they should understand is often amazing. Consequently, they frighten themselves out of their senses when chance puts in their way such publications, for instance, as Dr. Forbes Winslow's book on mental disease. Symptoms which prove nothing but the existence of over-fatigue of the nervous system, and which call only for less work, more air, and quiet amusement, and, perhaps, an extra glass or two of good wine, are mistaken for symptoms of actual brain-disease, and thus tend to produce the effect which has been mistaken for their cause. If such is the case with cultivated minds and recognized medical treatises, what must be the effect of these advertised abominations on the ignorant, the silly, and the vulgar?"

The defence was based on the justification of the article on the ground that it was true in substance and fact, and presented in corroboration the evidence of several of the most distinguished physicians of London, who spent nearly two days on the stand in showing the falsity and ignorance of the doctrines published by Dr. Hunter, chiefly in relation to the theory that the basis of tubercle is carbon, and that its cure consists of its dispersion by the inhalation of oxygen.

The Lord Chief Justice in his address to the jury was more emphatic than the writer of the article in question in his denunciation of the whole system of advertisements, and we regret that our pages are not large enough to receive it entire. We can only lay before our readers an occasional extract from the full report in the *Lancel*.

"Gentlemen,—This is an important case, no doubt. It is important to the plaintiff; for on your verdict must mainly depend his professional position, and, what is more, his personal character as a member of society. For if a man is an impostor and a scoundrel his personal as well as his professional character must be irretrievably ruined. It is also of great importance to the defendant that if he has done what he might honestly do, and no more, the character of the plaintiff should not be rehabilitated at his expense. The case, again, is more or less important with reference to the system of advertisement pursued by the plaintiff, and the conduct of a public writer and his responsibility in writing upon public matters. And it is important, likewise, incidentally in this view, that you may have to consider how far the character of an honorable profession may be damaged by recourse to such a system of advertising as you may perhaps see reason to consider improper and unprofessional. There can be no doubt that the article—unless it can be justified or excused—is libellous. . . . First, as to the question whether the defendant has established his plea of justification; in other words, whether the charges made in this article were substantially true. Here we must consider, in the first place, what is the real nature of the charge. The substance of the charge against the plaintiff seems to be this:—That he, dealing with one of the most fatal diseases known to mankind, with the intention of obtaining profit and emolument for himself, began by exciting unduly and wantonly the fears of those to whom his publications were addressed, and that then he held out to them delusive hopes of recovery from the adoption of a particular remedy, with the view of in-

ducing them to have recourse to it under his auspices, and thus put money into his own pocket. If this charge be true, one can scarcely conceive anything worse. If it be true that the plaintiff has wilfully put forward these false pretences in order to delude patients and thus to make them, if not in person at all events in purse, his victims, then, strong as the language of this article undoubtedly is, it is not one whit too strong, for the man who could so act is an 'impostor,' and an impostor of the worst and very vilest character, and to designate him as a scoundrel and impostor, strong as the language undoubtedly is, cannot be considered as at all an extreme way of describing such conduct.

"With regard to what he considers the causes of consumption, he says that, although it has been the fashion to teach that consumption is the consequence of hereditary taint, such is an utter fallacy, and the true and only cause of it is imperfect respiration arising from the accumulation of carbonaceous matter in the blood, and thence in the lungs. In a word, that tubercle is carbon, and carbon substantially the cause of tubercle. Thus he arrives at the conclusion that there must be an artificial inhalation of oxygen to disperse the carbon. The medical profession, he represents, know nothing of all this, and treat phthisis by remedies administered through the stomach; and that this is an entire delusion, that the remedies so given have really no effect, but that if oxygen is inhaled into the lungs by means of an inhaling process the carbonaceous matter is got rid of and dispersed. Now, if all this were true, there could hardly be a greater discovery. But we are told upon high scientific authority that all this is purely delusive; that it is not true that imperfect respiration is the cause of consumption, and that this, which is the foundation of his whole system, entirely fails; that he is deluding people when he says that imperfect respiration alone is the cause of consumption, and that there must be an hereditary taint, or some constitutional cause of that scrofulous habit in the body in which consumption has its source. They say, moreover, that he is deluding himself, or the public, when he says that tubercle is carbon; and that even if it were so the manner in which he proposes to get rid of it is equally delusive, so that his whole system is an entire delusion. But it does not stop here. They say that even assuming that the plaintiff was right in his idea that the disease is carbon and the cure oxygen, when he comes to the practical application of his system it is as fallacious as its theory: that when he speaks of inhaling oxygen—as the act of artificial inhalation is one which can only be carried on for a limited period, it can have but a very limited effect: that, if you consider the quantity of air, and therefore of oxygen, inhaled at every breath we draw, the quantity is so large that even assuming the respiratory organs in some degree to be obstructed, there would still be a very large excess beyond what is absolutely necessary; and that in comparison with this the quantity which could be artificially introduced by any process of inhalation would be so infinitesimally small that it could have no sensible or practical effect. And, according to the evidence of Dr. Odling (who dealt with the chemistry of the case), the amount of oxygen which would be taken in by inhalation would not be one per cent. of what a person would draw in by natural breathing. Therefore, they say that it is a delusion to suppose that the process would be of any practical

use; and, further, it is said that, even assuming that if the plaintiff could get the oxygen into the lungs in this way it would be of any use, he cannot get it there; that he acknowledges that he does not give the oxygen pure as a gas, but in combination with other matters, and that this combination must be broken before the gas can be evolved so as to pass into the system; that oxygen acts only as a gas, and that, until it is separated from other substances with which it is combined, it cannot enter into the lungs, so as to effect its object. He proposes to use chloric acid. Either it is used alone or in combination with other substances. If alone, then it must be heated so as to give forth oxygen, and then it will be combined with chlorine, which is a powerful irritant to the lungs; or, if the acid is diluted, then the quantity of oxygen evolved will be so minute as to be useless. And if the acid is used (as the plaintiff says it is) with other substances, especially in the form of tinctures, which contain alcohol (for which oxygen has an affinity), then the oxygen will be absorbed. So that even if the plaintiff's theory were as sound as it is said to be fallacious, his practical application of it would be entirely delusive. Such is the evidence given by some of the most eminent medical men of the day, and by one of the most acute and intelligent professors of chemistry it has ever been my good fortune to listen to.

"The whole tenor of the book is to show that it is useless to go to our ordinary medical practitioners, no matter what confidence we may have in them: although they have treated us for years, and have the highest reputation in the profession, they can do us no good; they will buoy us up with false hopes, which only lure us to our destruction; they will tell us, 'Wait till the spring; have a change of climate.' The spring will never come, and the only country we shall see is that beyond the grave. The only remedy is inhalation, and that cannot be obtained from them. They are ignorant and bigoted and incapable, they do not understand or appreciate it: they are useless, therefore, and worse than useless to us; one person alone can save us; and that man is—Dr. Hunter! (Laughter.) It is impossible to read this book, with all its reflections upon the medical profession, without seeing that the only conclusion is that we must abandon all other medical advisers and put our faith in him. And if you are of opinion that he urges his readers to that conclusion upon grounds which he must, as a medical man, have known to be fallacious, then the article would be justified. It was pressed by the counsel for the plaintiff that new discoveries or novel views in any science are always received with discouragement. That is true; but, on the other hand, we know, by the experience of all ages, back to the very origin of history, that there have always been men who have practised upon the fears and credulity of mankind, and especially pretenders and impostors with regard to medicine—men who have trafficked in the misery and sufferings of their fellow-creatures, and aggravated the sufferings they pretended to mitigate or heal, for the mere purpose of their own sordid interests, and without regard to the miseries of the disease they aggravated while pretending to cure. And to denounce and expose such pretensions and impostors is perhaps one of the most meritorious actions that can be performed by a public writer when actuated by an honest zeal in the exercise of an honorable vocation. Therefore, we must look at both sides of the question. It may be that the

plaintiff, while he makes dupes of others, is himself a dupe, and he may have persuaded himself, as many have done, with their notions and fancies, that his views were founded on truth, though really they may be based on error. But, on the other hand, it may be—especially if he has, indeed, that medical knowledge which his counsel represents him as possessing—it may be that he knows that the best way of preying upon mankind, and of bringing patients to consult him, is to work upon the fears of the nervous and timid; that he may know that his pretended theories and pretended remedies are alike delusions, and as calculated only to end in disappointment and death, as he represents ordinary remedies to be. It is for you to judge between these two views of the case; and though it does not follow merely because his system is delusive that therefore he is an impostor, yet if you believe he puts it forth dishonestly, then indeed you may find it proved that he is an ‘impostor’ and a ‘scoundrel,’ as he is represented to have been. . . . Now a word as to the advertisements. Not satisfied with the unprecedented success of his book, Dr. Hunter must needs republish it by advertisements filling whole columns of *The Times*, and numerous other newspapers in town and country. It is said in excuse that he comes from America, and that there it is usual; but however that may be, happily the practice has not extended itself here; and the writer of the article was writing with reference to English usages. If it were open to professional men here thus to advertise themselves, the dignity and honor of a noble profession would be tarnished and soiled. A member of my own profession who should republish a treatise in the papers, followed with a card of his address, would be scouted from the profession: and what difference is there in this respect between the professions of medicine and of law? They are sister professions, equally amenable to the same rules of professional honor, and therefore I must say that, whatever may be the practice in America (and I cannot believe that such practices are resorted to there by members of the medical profession or any other liberal profession), I hope it will never be deemed consistent with professional honor in this country to resort to such practices; and I cannot but think that the writer of this article was right in denouncing the practice as unworthy of an honorable profession. . . . But suppose you cannot go that length, that will not conclude the case. It will bring the defendant to his second ground of defence, which, in that event, you must consider. Under head of defence, he says that it was a matter of public interest and public concern; that the plaintiff invited people by his advertisements to submit to his system of treatment; and that if he, the defendant, really believed it to be a delusion, then he had a right to maintain that it was so; and that even if, in drawing inferences of imposture and bad intention, he fell into error, yet he wrote honestly, and with the intention of exercising his vocation as a public writer fairly and with reasonable moderation and judgment, he is entitled to the verdict. And I entirely agree in that view. Here is a man challenging public criticism by bringing forward what professes to be a new system of treatment, and inviting the public to adopt it as the only means of curing the most destructive disease known among us. In doing this he challenges public criticism, and if a public writer, using a reasonable degree of temper and moderation, as behoves any one who makes

imputations upon others—if a public writer, thus discussing the subjects in the exercise of his vocation, falls into error as to the facts or inferences, and goes beyond the limits of strict truth, he is nevertheless privileged. The occasion is a privileged one, and if the privilege is exercised honestly, faithfully, and with reasonable regard to what truth and justice require, then, though he may exceed the limits of what he can legally prove to be the truth, he is protected from liability. It is not therefore necessary that the justification should appear to you to be made out, if you think that the defendant, or the writer, was in the reasonable and honest exercise of his vocation as a public writer, even although he was not fully warranted in drawing the inferences he did as to the conduct of the plaintiff, and though it may be that he was not entirely justified by the absolute truth. As you may be of opinion, therefore, on one or other of these questions, your verdict will depend. Assuming that it is for the plaintiff, then will arise the question of damages. The article certainly was one calculated to inflict great pain and cause much injury. It is written with extreme bitterness and severity, and its language is of the strongest description. But you must not forget the circumstances under which it was written. It has been suggested that it was written by some medical man. I think it is extremely likely, and I hope that it was so, for in that fact I should find great ground for indulgence, even if you should think the article neither justified nor excused; because it is plain to any man who reads it that it was written in a spirit of honest indignation, such as a member of the medical profession well might feel, seeing the way in which a member of it was soiling and degrading its honor and character by this system of advertisement. And if the writer of the article was satisfied in his own mind—as you cannot doubt he was—that the plaintiff's system was delusive and that he himself was a pretender and a quack, then we cannot wonder that in his honest indignation he should have put gall into the ink when he wrote to expose the conduct which he denounced. It was not the case of a man sitting down to gratify personal spite or professional malice, but a man writing honestly to denounce what he honestly believed to be a system of quackery and imposture, and to vindicate the honor and character of the profession of which he was a member, and to do his duty to the public, in whose interest he was writing.

“The jury, at the close of the summing up, retired to consider their verdict, and were absent an hour or two. On their return they gave a verdict for the plaintiff—Damages, One Farthing.”

Nominations for Brevet Rank in the U. S. A. Medical Department.—Among the nominations by His Excellency the President of the United States for appointments in the Army, subject to the approval of the United States Senate, are the following:—

To be *Captains* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Assistant Surgeons Peter V. Schenck, Henry R. Silliman, Samuel A. Storrow, William D. Wolvertton, Albert Hartsuff, Bolivar Knickerbocker, and Henry R. Tilton. Also Assistant Surgeon George A. Otis, for faithful and meritorious

services in the Medical Department, to date from September 29, 1866, and Assistant Surgeon William C. Miner, for meritorious and distinguished services at Fort Columbus, New York Harbor, where cholera prevailed, to date from September 28, 1866.

To be *Majors* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Brevet Captains and Assistant Surgeons Peter V. Schenck, Henry R. Silliman, Samuel A. Storrow, William D. Wolverton, Albert Hartsuff, Bolivar Knickerbocker, and Henry R. Tilton. Also Brevet Captain George A. Otis, for faithful and meritorious services in the Medical Department, to date from September 29, 1866.

To be *Lieutenant-Colonels* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Surgeon Charles McCormick, Thomas M. Getty, George Taylor, and Joseph C. Baily; also Brevet-Major and Surgeon Warren Webster, for meritorious and distinguished services at Hart's Island and David's Island, New York Harbor, where cholera prevailed, to date from September 28, 1866; also Brevet-Major and Assistant Surgeons G. M. McGill and J. R. Gibson, for meritorious and distinguished services at Hart's Island, to date from September 28, 1866; also Brevet-Major and Assistant Surgeon Henry S. Schell, for meritorious and distinguished services at Tybee Island and Savannah, Georgia, where cholera prevailed, to date from September 28, 1866; Brevet-Major and Assistant Surgeon Charles K. Winne, for meritorious and distinguished services at Tybee Island, Georgia, where cholera prevailed, to date from September 28, 1866.—*Medical Record*.

The remaining nominations will be given in our next number.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 12th, 1867.

DEATHS.

	Males.	Females.	Total
Deaths during the week - - - - -	42	39	81
Ave. mortality of corresponding weeks for ten years, 1856-1866	41.8	38.8	80.6
Average corrected to increased population	00	00	88.8
Death of persons above 90 - - - - -	0	0	0

ERRATUM.—In the JOURNAL of last week, page 491, the total number of patients in the Marine Hospital at Chelsea should have been 41,600, instead of 11,600.

MARRIED.—In Woodstock, Vt., Oct. 3d, O. W. Sherwin, M.D., to Miss Mary J. Forbush, both of Reading, Vt.

DIED.—At his residence at Sing Sing, on the Hudson, on the 29th day of November, Dr. Horace Green, in the 64th year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 12th, 81. Males, 42—Females, 39. Congestion of the brain, 1—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 1—cancer, 4—consumption, 17—convulsions, 1—croup, 2—dropsy, 2—dropsy of the brain, 3—epilepsy, 1—erysipelas, 2—typhoid fever, 2—gastritis, 1—disease of the heart, 1—hydro-rachitis, 1—infantile disease, 5—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 4—inflammation of the lungs, 7—marasmus, 1—old age, 5—pleurisy, 1—premature birth, 1—puerperal disease, 2—smallpox, 1—tumor, 1—ulcers, 1—unknown, 6—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 7—between 20 and 40 years, 18—between 40 and 60 years, 10—above 60 years, 20. Born in the United States, 53—Ireland, 21—other places, 7.

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No. 26.

A CASE OF ASTIGMATISM.

[Read before the Boston Society for Medical Observation, November 19th, and communicated for the Boston Medical and Surgical Journal.]

By GUSTAVUS HAY, M.D., of Boston.

WHEN consulted for advice by a patient affected with astigmatism, we have first to recognize the affection; secondly, to find the directions of the meridians of greatest and least refraction, which are generally perpendicular to each other; thirdly, to find the refractive power of the eye in each of these meridians; lastly, to equalize these two different refractive powers by means of a cylindrical glass properly placed and combined with such a spherical glass as to enable the eye to work easily at the required distance.

Among the various means of recognizing this defect and the directions of the principal meridians may be mentioned the ophthalmoscope, which, when astigmatism is present, gives in the upright picture an image of the nerve-disc more magnified in the direction of the meridian of greatest refraction than in the direction at right angles to this, and *vice versâ* in the inverted picture. As the shape of this latter picture would be affected by an oblique position of the convex lens, such obliquity should be avoided. This means of diagnosis has been specially described by Schweigger,* who thinks that by it degrees of astigmatism as small as $\frac{1}{20}$ or $\frac{1}{30}$ may be recognized.

Another test, perhaps more delicate, though depending on the perceptive power of the patient, is given by the optometer, as described in a case to be reported.

Mr. B., æt. 23, besides an imperfection in the right eye, the result of a wound of the sclerotic close to the cornea some fourteen years previously, was affected with compound myopic astigmatism in both eyes.

By means of an optometer, consisting of a convex lens of four inches focus, through which the eye to be tested looks at a movable card, on which fine lines are drawn radiating from a point in various

* Archiv für Ophthalmologie, 1863. Vorlesungen über den Gebrauch des Augenspiegels, Berlin, 1864.

directions, it was found that for the right eye the vertical line of the card remained distinct at a greater distance than the other lines, and accordingly it was inferred that the eye was weakest in refractive power in the horizontal meridian, the one perpendicular to the line of the card the last to become indistinct as the card was gradually removed from the eye. This appears from the consideration that this meridian, admitting of being accommodated for the distance at which the vertical line was seen distinct, could thus be accommodated for a greater distance than any other could be and therefore was weaker than the others.

An approximative value of the refractive power of the horizontal meridian was also given by the optometer,* viz., myopia $\frac{1}{45}$.

Having learnt thus much, the next step was to determine this refractive power more accurately by means of vision for the distance through a narrow slit and a spherical glass. It was found that the eye, the right, without any glass had at twenty feet vision $\frac{1}{4}$; through a horizontal slit had vision nearly $\frac{1}{2}$; through this slit and concave 40 vision $\frac{2}{3}$; through the slit and concave 36 vision nearly equal to 1. From the last observation it was inferred that the horizontal meridian was myopic $\frac{1}{36}$.

To find the refractive power of the vertical meridian, which we have already seen was stronger, that is, in this case, more myopic than the horizontal, concave spherical 36 was combined with a concave cylindrical, with its axis horizontal, commencing with the weakest. It was found that concave spherical 36, in combination with concave cylindrical 30, gave the best result—vision nearly equal to 1.

It thus appears that while horizontally the eye was myopic $\frac{1}{36}$, it was vertically myopic $\frac{1}{36} + \frac{1}{30} = \frac{1}{18}$, nearly.

With concave spherical 20, which the patient had been using, and which is too strong for one of the principal meridians and too weak for the other, vision was pretty good, but less so than with the combination of spherical and cylindrical as above.

By a similar examination, the other eye, the left, was found to be myopic horizontally $\frac{1}{10}$, and vertically $\frac{1}{10} + \frac{1}{30} = \frac{1}{7\frac{1}{2}}$; with corresponding glasses, concave spherical 10 combined with concave cylindrical 30, axis horizontal, vision was equal to 1. Concave spherical 10 was not as good alone as when combined with the cylindrical.

It will be noticed that the cylindrical portions of the combinations are the same for the two eyes, but the spherical portions are different.

The above glasses suited for the distance, but for near objects it

* By means of Javal's binocular optometer, an instrument somewhat similar to the one described, but having, besides other advantages, an apparatus for bringing before the eye to be tested a series of concave cylindrical glasses of various powers and with their axes in the desired position, that is, parallel to the meridian of least refraction, we can ascertain directly the difference of the two principal meridians, this difference being equal to the refractive power of the glass, which enables the eye to see all the lines of the card equally distinct. For an account of Javal's method, see *Annales d'Oculistique*, 1865.

seemed better to make the far point 36 inches, it being found that the right eye, somewhat imperfect from the previous injury above mentioned, read more easily with the cylindrical $-\frac{1}{30}^c$ alone than with the glass for distance.

For the left eye the glass to make the far point 36 inches would be concave spherical 14 in combination with concave cylindrical 30, or, as shortly written, $-\frac{1}{14}^s \text{ } \bigcirc \text{ } -\frac{1}{30}^c$; but as through this the letters appeared too small, a weaker spherical, 16, was adopted instead of the 14.

After selecting the glasses it remains to have them carefully set; a matter of considerable nicety, the cylindrical axes requiring to be properly directed, and the eyes to look nearly perpendicular through the centres of the glasses.

In the above case we found the weakest meridian to be myopic, and in consequence knew the strongest to be more myopic. If in any case we could determine the strongest meridian to be hypermetropic, the weakest would be more hypermetropic, and with this knowledge we could proceed in a manner analogous to that described in the case reported, using convex glasses instead of concave, and in the determination of the refraction of the strongest meridian by means of a slit and convex glass, giving the preference to the strongest convex with which the best vision in the distance could be obtained.

CASES OF CROUP.

[Read before the Bosron Society for Medical Observation, December 17th, 1866, and communicated for the Boston Medical and Surgical Journal.]

By CHARLES D. HOMANS, M.D., of Boston.

CASE I.—F. S., aged 5 years, was brought to the City Hospital, Sept. 19th, at about 11 o'clock, A.M. She had been hoarse the day before, had coughed somewhat, and complained of soreness of the chest. She had been seen by Dr. J. G. Blake, on the 18th, who did not then regard her as very sick, and found no membrane in the fauces. Two other children of the same family, living in a damp, badly ventilated lodging at the South End, have died of the same disease.

On entrance, she was blue in the face, gasping for breath, entirely unable to speak; death seemed imminent; the soft palate and uvula, with the tonsils, were covered with a soft, dirty-white exudation. She was etherized and tracheotomy immediately performed, the tube being inserted about two inches above the sternum; a small piece of grayish false membrane was pulled from the trachea through the wound at this time. Very shortly after the operation her countenance recovered its color and respiration became less labored. She was placed in a room filled with steam, and soon went to sleep. At 12½, P.M., her pulse was 144, strong; respirations 34, easy; at 2,

P.M., pulse 156, at 4, P.M., 138, and continued at about that rate all night. She slept for about two hours, having taken seventy drops of tincture of hops. During the afternoon, she took egg-nog at short intervals, about one drachm at a time, and in the evening beef-tea was taken with avidity; thirst was very great. Tube cleansed at midnight.

Sept. 20th.—At 2, A.M., she had a momentary spasm of the muscles of the limbs; at 6, she seemed hot and restless, and the beef-tea and stimulants were omitted. At 7½, quiet; pulse 126, firm; respiration easy. The pulse was steady at 125–130 during the day; she slept considerably; general appearance better, though the skin is rather dusky. She drank one half pint of milk during the day, water *ad libitum*, and took nothing else. The air was kept exceedingly warm and moist by means of a faucet in the steam-pipe by which the room was heated. Tube cleaned four times. Her tongue was clean at the edges, but covered in centre and back with a thick, whitish brown fur; respiration rude all over chest, with many coarse râles.

21st.—Complexion dusky. Slept from three to four hours in the night. Pulse 130, good. Takes milk, beef-tea and egg-nog.

22d.—Slept well. Pulse 120, not very strong. Can force air through the mouth when the tube is corked, but cannot inspire.

24th.—Countenance still dusky. Has coughed up through tube several times a thin creamy fluid. Pulse rather feeble. *R.* Syr. ferri iodid., gtt. x., three times daily.

26th.—Coating of fauces clearing off. Pulse 130.

27th.—Creamy discharge increased; it comes through and around the tube. Countenance bluish.

Oct. 2d.—Still unable to inspire through mouth and nose, but can force air out through glottis with difficulty.

4th.—Countenance somewhat less dusky; discharge from tube less.

8th.—Was able yesterday, for the first time, to breathe by the mouth and to speak, though very hoarse. The inner tube has been removed and the outer left in, but corked, the air passing through openings made for the purpose. From this time she slowly improved, gradually gaining strength and losing the dusky hue of her skin. The hoarseness continued in some degree as long as she remained in the hospital. Oct. 15th, the tube was removed from the trachea, and the opening closed very quickly. Nov. 1st, the use of steam was given up, and on the 17th she was discharged, well.

CASE II.—J. S., æt. 6½ years, sister of the preceding, was brought to the City Hospital in the morning of Sept. 22d, having had a cough, with hoarseness, since the 16th inst. There was a white fibrinous exudation on the back of the fauces and on the tonsils, her tongue was covered with a smooth, white coat, her appetite poor, her countenance natural, but with an anæmic look. Her bowels were regular; pulse 105, good; respiration easy, but noisy; cough croupy, not

very hard, but with three or four paroxysms daily. Her voice was quite indistinct, and at evening nearly gone. She was placed in the same room with her sister, under the influence of steam, and had the same diet—beef-tea, milk and egg-nog. In the evening the pulse was 120, not strong; the respiratory murmur was audible all over the chest; there were sonorous and mucous râles everywhere, but principally in left back. This state of things continued for four or five days. On the 24th, ten drops of the syrup of iodide of iron were ordered her three times a day; and, on the 26th, the membrane had disappeared from her throat, and she appeared generally better. Her voice returned on the 28th, though very hoarse. Oct. 2d, she had much improved in every way, though still quite hoarse. She was moved to the large female ward with her sister on the 1st of November, and was discharged well, Nov. 17th, her voice being nearly natural.

CASE III.—S. M., æt. 8 years, was brought to the City Hospital at 7½, P.M., Oct. 2d. Had been sick a week with symptoms of croup, and had suffered from excessive dyspnœa for thirty-six hours previous to entrance. Her pulse was about 130, dyspnœa extreme, countenance livid, skin cool, and she was unconscious. The trachea was immediately opened, the operation occupying but a few minutes, but during that time the respiration had ceased, the face became very livid, and the pulse scarcely perceptible. Air was blown in and sucked out of the lungs by means of a catheter in the wound, and the tube inserted as soon as possible, respiration soon becoming regular and easy. She was removed at once to the steam room. Fifteen minutes after the operation her pulse was 120, but it grew more rapid afterwards, and in two hours was 162; respirations 48; her consciousness, however, had returned, and she was able to sit up and swallow water. Milk-punch and beef-tea were directed for her to drink, or to be given by enema if necessary; also, 5 i. of a saturated solution of chlorate of potash every two hours.

Oct. 3d.—Seemed very weak. Respirations quiet, about 30; pulse 130. There is a grayish coating over tonsils, posterior fauces, uvula and back of tongue, said to be less general than before entrance. A tenacious, frothy mucus is coughed up through the tube.

4th.—Had a good night. Expectoration as above, more abundant. Upper part of neck, especially on left side, is much swollen.

5th.—Neck considerably swollen; no respiration by mouth; tube was removed, on account of irritation, with relief; tongue is entirely covered with a thick white membrane; fauces as before; pulse 120.

6th.—More expectoration, more easily raised; respiration easy, through opening in trachea; tube has not been re-inserted, as it did not seem necessary. There is an erysipelatous blush about the wound.

7th.—Some appetite; otherwise as before.

8th.—Wound is covered with a white coating, similar to that on

the tongue. Erysipelas fading. Patient sits up in bed and reads. Takes food with relish.

Oct. 10th.—Membrane gradually disappearing from wound and mouth. Can expire quite forcibly through the mouth.

12th.—Spoke aloud to-day for the first time; quite hoarse. Neck much less swollen; wound in trachea still open, but gradually filling up with healthy granulations.

15th.—Wound closed, so that no air comes through. Voice still quite hoarse; eats and sleeps well; countenance of good color; membrane nearly gone from the mouth.

16th.—Steam shut off. Patient dressed.

21st.—Wound filled with granulations, even to the surface of the skin; edges brought together by adhesive plaster.

Nov. 3d.—Discharged, well. Tonsils somewhat enlarged; voice still rather hoarse, though improving every day.

Within the past three months I have seen two other cases of croup, for the relief of which I performed tracheotomy.

One was a child of two years, who had been sick for a week without seeing a physician; the gentleman then called in sent for me in consultation. I found the child moribund, apparently, respiration exceedingly difficult and very noisy, voice gone, countenance livid and pulse very frequent. The trachea was opened as soon as possible, but the child died shortly afterwards.

The other case was in a child $2\frac{1}{2}$ years old, who had had croupy symptoms for three days, and had been treated by steaming the air and otherwise very rationally. When seen by me, there was lymph on the tonsils, neck somewhat swollen, countenance somewhat dusky, respiration labored, cough very hoarse and voice a whisper; there had been but very little sleep for forty-eight hours. The trachea was immediately opened and the tube inserted without any trouble, the child being etherized. Immediately after the operation the child dropped into sleep which lasted for several hours, the breathing became less labored, and recovery seemed possible; but the next day the symptoms became worse, though never so bad as before, and the little patient died of exhaustion on the third day after the operation.

In these cases the recoveries corresponded to the general rule that the older the child the more apt it is to get well, if attacked with membranous croup, more especially after tracheotomy has been performed. There might be a question whether the first two cases ought not to be called diphtheria, but there was no symptom of the latter disease present which did not also belong to croup. The fact that four children in the same family were attacked with the same disease, of whom two died, would seem to point to a disease highly infectious or contagious. In many cases, however, the diagnosis is very difficult between the two diseases; in fact, it seems to me impossible sometimes to say which is the disease we have to treat, there being no entirely characteristic symptom in one which may not occur

in the other. The French include both these affections under one name—"diphtherite"—and it certainly seems to me much more philosophical than to have two names for cases which differ more in degree than in anything else, the diagnosis of which is so often very uncertain. The third case reported is quite interesting, as the child was very low when operated on, and it was the opinion of the physicians and surgeons of the Hospital, many of whom were present accidentally, that the case would be fatal; in fact, artificial respiration was necessary: this was done by Dr. Buckingham, who had seen the patient before her entrance to the Hospital. The long persistence of the hoarseness and the dusky hue of the countenance in the first and third case is also worthy attention.

CASE OF PHLEGMONOUS ERYSIPELAS, FOLLOWING THE HYPODERMIC INJECTION OF A SOLUTION OF SULPHATE OF MORPHIA.

By J. W. MERRIAM, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

A FEW weeks ago, while suffering from an attack of lumbago, resulting from exposure to a draught of cold air on board steamer, I took an hypodermic injection of a solution containing half a grain of sulphate of morphia. The injection was made over the *supinator longus* of the left arm. Care was taken to avoid puncturing a vein, and not even a drop of blood followed on withdrawing the syringe. The next morning the arm was somewhat sore to the touch, and the neighborhood of the wound a little more red than usual, but no importance was attached to these symptoms, as they had frequently occurred before in my own person, and had disappeared without any serious results. I did not look at the arm again till the following day (about forty-eight hours after the injection), when I noticed around the puncture an ecchymosis of the size of a quarter of a dollar, sharply defined, of a bright red color, which did not disappear on pressure. The forearm was considerably swollen and inflamed, and began to assume an erysipelatous aspect. It was kept painted with tincture of iodine for the next twenty-four hours, until on the following day, Dr. N. F. Martin, the Post Surgeon at Fort Mojave, discovered the presence of matter, and substituted a poultice for the iodine. In the course of a couple of days a free opening was made, the matter evacuated, and the poulticing continued.

The whole back of the forearm was now exceedingly tender, and the skin of a bright red color, tense and shining. A wash of acetate of lead and opium removed all the unfavorable symptoms; the wound was dressed with Turner's cerate, and the case rapidly pro-

gressed to a favorable result. Tincture of the chloride of iron was taken internally throughout the attack.

I have thought it worth while to report this case, as it illustrates the fact that erysipelas may follow the most simple operation, even when performed upon a person whose general health is robust, while more important operations, under apparently the same circumstances, may not be followed by any such consequences.

I do not know why erysipelas should have occurred in my case, but I should not be deterred, in consequence of it, from resorting to similar treatment again through fear of a like result.

In April last, I submitted to a painful operation, skilfully performed by Dr. Coolidge, of Boston, after which, during a period of seven days, fifteen different hypodermic injections of Majendie's solution were given me, with no more ill result than a slight ecchymosis of a diffused character, which passed through the usual changes of color noticed after a bruise, and which never even threatened erysipelas.

Fort Mojave, Arizona Territory, Dec. 1, 1866.

ATROPINE AND MERCURY IN ACUTE IRITIS.

By T. PRIDGIN TEALE, Jr., M.A., Surgeon to the General Infirmary at Leeds.

DURING the last two years and a half I have recorded in a tabular form the cases of acute iritis which have come under my care, in order to test the value of certain views of treatment which I had arrived at from the observation of such cases previously to this period. The exactness of the results is so marked, and the sequence of events so definite, that I feel justified in relating the cases to the profession, and in deducing from them certain principles of treatment, which, if not new, may at any rate not be generally known or acted upon in medical practice.

In speaking of iritis, in this paper I exclude from consideration all cases of traumatic origin, all those which are secondary, i. e., caused by extensive adhesions of the iris to the capsule of the lens left by previous attacks, all subacute forms travelling forward to the iris from the deeper structures, and all cases occurring in children. These are excluded in order to simplify the inquiry, and restrict it to those acute forms, generally syphilitic, which occur in the previously healthy eye of the adult, and which, if neglected, rapidly endanger vision.

For treating such cases many remedies have been and are still employed—venesection, leeches, blisters, opium, purging, belladonna, turpentine and mercury. Some surgeons use many of these in combination, others depend upon some single drug, others denounce particular drugs as injurious or useless. Some claim opium as a cure for all cases, with some belladonna is omnipotent, with others

mercury and bloodletting are indispensable. In this variety of practice where lies the truth? Can we arrive at it? I trust that the following records will be accepted as an instalment in this inquiry, as they have been carried out in order to test the relative value of atropine and mercury, to ascertain how much each remedy can do, and to determine if possible the most effectual way of employing them.

The cases here recorded appear to me to justify the following conclusions and principles of treatment.

1. Iritis can generally be cured, quickly and perfectly, by atropine alone, or by atropine and mercury combined, without the aid of other remedies. How far opium, blisters, leeches, and venesection aid and accelerate progress I have not yet tested, wishing in the first instance to determine the value of the remedies under consideration, and then to make the results herein obtained a starting point for further inquiry.

2. The presence or absence of syphilis does not affect the question of treatment.

3. Many, perhaps one-half, of the cases of iritis, *whether syphilitic or not*, can be cured by *atropine alone*.

4. Those cases in which atropine fails to dilate the pupil in twenty-four or forty-eight hours require mercury. In occasional cases the application of leeches renders an eye susceptible of dilatation which at first was unaffected by atropine.

5. When mercury is required, it ought to be introduced into the system rapidly.

6. If the system is to be affected by mercury, the mercury ought to be introduced by *the skin, not by the stomach*. When this drug is introduced by the stomach, the digestive powers are depressed at the very period when their healthy function is most needed. When introduced by the skin, its full remedial effects are obtained without any impairment whatever of the powers of nutrition. It is my rule never to introduce mercury by the stomach when I wish to obtain rapidly the constitutional effects of the drug.

7. In those cases which require mercury it is sufficient to render the gums slightly tender. When the gums are even slightly affected, we have therein evidence of the introduction of mercury into the system in quantity sufficient to turn the scale in favor of health, and carry the case to a successful issue. Therefore, the moment we find the gums undoubtedly tender, or beginning to be tender, we may suspend the drug.

8. In most cases the constitutional effects of mercury, indicated by tender gums and improvement of symptoms, may be obtained on the second, third or fourth days, provided the patient be confined to bed. Absorption of mercury by the skin appears to be *much more* rapid when the patient is confined to bed than when he is allowed to go about as usual.

9. Atropine should be used during the whole period of treatment, except where it causes great pain or increases conjunctival irritation, in which case it may be *temporarily* suspended, or dissolved in glycerine and applied to the skin.

10. That in cases requiring mercury the coincidence of tenderness of gums, of relief from pain, and of the action of atropine on the pupil is almost absolute, even to an hour or two. Perhaps in cases more severe than those recorded, with great effusion of lymph, the visible effects of atropine may be delayed to a later period. On this point I do not possess evidence.

Let us now inquire how far these conclusions are justified by the cases, and what are the general results of treatment.

Treatment.—Of the twenty cases, eleven were treated by atropine alone, nine were treated by atropine and mercurial ointment combined. In one or two cases, a dose of Dover's powder was given when the pain was excessive, and in some others salines were given during the application of the mercurial ointment if the skin was hot and not perspiring. Leeches were used, I believe, in three cases only. Two cases had taken mercury before coming under my care.

Question of Syphilis and its relation to Treatment.—Thirteen cases were undoubtedly syphilitic. Of these, five required mercury; eight recovered under atropine alone. In seven, syphilis was either denied or not made out. Of these, four required mercury; three were cured by atropine alone.

Rapidity of Mercurial Effects.—Of the nine cases in which mercury was required, one used the ointment twenty-four hours; a second twenty-four hours, having previously taken blue pill five days without benefit; a third and fourth used the ointment two days, a fifth and sixth three days, a seventh and eighth four days, the ninth twelve days. So that of nine cases of iritis in which mercury was used, only one required the application of the ointment for more than four days.

Rapidity of Recovery.—Of the twenty cases, seven recovered good sight and pupil within two weeks; one within a "short time"; five within three weeks; three within four weeks; three within eight weeks; one within three months; the twentieth was relieved from pain, with partial recovery of sight.

Perfection of Sight.—Fifteen read No. 1 Jaeger, three (including the second eye of one case) read No. 2, two read No. 6, one could read No. 18.

Perfection of Pupil.—Twelve recovered with a perfectly active pupil free from adhesions, in five there were slight or single points of adhesion, in one there was closed pupil, and in two the condition of pupil is not recorded.

Duration of Disease before Treatment.—In eight the disease had existed not more than a week before coming under my care, in four

not more than two weeks, in six less than two months, in one three months, and in one three months and a half.

Condition of Vision before Treatment.—In six cases vision was limited to perception of shadows; in two it was described as dim; in two the patient could not read Jaeger No. 20; in three the patient read No. 20; in two No. 16; in three No. 4; in two the condition of vision is not recorded.

Disappearance of Mercurial Effects.—In all the cases, although no special note is made on this point, the constitutional effects of mercury passed off in a day or two, and in none do I recollect to have met with any injurious effect whatever which could be traced to the use of mercury.

Relapse of Iritis.—In one case only have I any record of a relapse, and this relapse disappeared rapidly under atropine alone. This fact tends to confirm Gräfe's assertion, "that the principal cause of recurrence of iritis is the existence of synechiæ;" in other words, when iritis is cured with a pupil free from adhesions, it seldom evinces a tendency to recur.

Mode of using Atropine and Mercury in Iritis.—Use of Atropine.—On first seeing a case of iritis, whatever its degree, I order atropine, of the strength of two grains to the ounce, to be dropped into the eye six times, at intervals of five minutes, in the morning, and six times also in the evening. On the following day, if the pain is lessened and the pupil is beginning to dilate, I conclude that the case is slight, and that atropine alone will cure it. If, however, the pupil is affected, and the symptoms unabated, I commence mercurial treatment without delay.

Use of Mercury.—The patient is ordered to lie in bed, to wrap round each arm a broad piece of flannel, well smeared with mercurial ointment, and to wear this mercurial bandage until the gums are slightly tender, a small quantity of fresh ointment being added every evening. It is not necessary to *rub in* the ointment. I suspect that the "rubbing in," by producing irritation, impairs the absorbing power of the skin.

Discontinuance of the Mercury.—As soon as the symptoms of the disease begin to abate, or the gums begin to be tender (and these two conditions are generally coincident), the mercury is discontinued. In none of these cases has mercury been given by the mouth (except in two cases, which had been so treated before coming under my care), and in none has the ointment been rubbed in.

Discontinuance of the Atropine.—As soon as the pupil is fully dilated, as far as any adhesions will permit, the instillation of atropine is reduced to once or twice a day, and continued at this rate as long as redness or tenderness of the eye remains.

This mode of treating iritis coincides very nearly with that described by Gräfe (On Iridectomy, New Sydenham Society, 1859), in using atropine as the main remedy, and mercurial inunction in cases

too severe to yield to the atropine. It differs from it in dispensing with *rubbing in*, and with the use of mercury by the mouth. Mr. Dixon, in his early remarks on iritis, condemns belladonna; in his later work he speaks timidly of its use as an appendage to other treatment. The cases here recorded prove Gräfe to be correct in claiming atropine as the sheet anchor, and in making other remedies subordinate.

William Lawrence and most ophthalmic writers give mercury by the mouth, and do not mention its introduction by the skin. They speak of the coincidence of the improvement in the symptoms with the first appearance of constitutional effects of mercury, and make this the signal for reduction, not as I have done, for the entire omission of mercury.

Bloodletting, local and general, is usually urged as indispensable in iritis. That it is not so I think the foregoing cases prove. I believe, however, that local bloodletting may be a valuable addition to other means of treatment, and that it facilitates the absorption of atropine and accelerates its effects.

Note on the Action of Atropine.—Writers on iritis generally rest the credit and value of atropine or belladonna on its powers of dilating the pupil, in setting at rest the muscular tissue of the iris and ciliary body, and in diminishing the risk of the formation of synechiæ. I cannot, however, but suspect that it does more than this—that it acts as a direct sedative on inflamed and congested tissues, and that much of its power depends upon its influence in contracting the bloodvessels. I cannot in any other way explain the remarkable value of this drug in many cases of ulcer of the cornea, and so-called strumous ophthalmia, a large proportion of which I treat by atropine only. Nor can I explain in any other way the immediate improvement, and rapid and complete recovery by means of atropine alone, of many cases of syphilitic iritis. That atropine does reduce the size of bloodvessels I have no doubt, having several times satisfied myself of the fact by observing the calibre of delicate vessels traversing the cornea, before and shortly after the instillation of atropine.—*New Orleans Medical and Surgical Journal*, from *London Ophthalmic Hospital Reports*.

A PILL-BOX factory in Brandon, Vt., owned by Newton & Thompson, uses two thousand cords of wood per annum, and employs sixty men, boys and girls. The factory is run night and day a portion of the year. They have in use ten of Newton's self-operating pill-box and spool machines. They have been in operation about eight years. The factory is capable of turning out about five hundred gross of boxes per day.—*Druggists' Circular*.

Bibliographical Notices.

Conservative Surgery, as exhibited in remedying some of the Mechanical Causes that operate injuriously, both in Health and Disease. With Illustrations. By HENRY G. DAVIS, M.D., Member of the American Medical Association, &c. New York: D. Appleton & Co. 1867. 8vo. Pp. 314.

THIS is a handsome volume, but a little too diffuse, both in title and in text. The author aims to treat not only all the deformities usually included under the head of orthopædic surgery, but also to comprise the pathology and treatment of fractures and dislocations, as well as diseases of the joints, and phthisis pulmonalis. And this brings us to its second fault, if fault must be found—that its author is too persistent to be agreeable, in urging his claims to priority in invention of means adapted to the ends he seeks. Thus he claims precedence in the use of elastic extension over Drs. Gurdon Buck and Swinburne (pp. 5 and 6), Louis Bauer (p. 138), David Prince (p. 160), Charles F. Taylor (p. 268), Dr. Barwell of London, and, finally, Dr. Sayre, of which latter claim more anon.

Allowing all these claims to priority to be true, we conceive that it would have been in better taste and equally effective, to have embodied them all in an introductory or a closing chapter. Particularly do we deprecate such a controversial spirit as is shown on pages 139, 161, 264, 265 and 266.

What we may not unjustly term the too great confidence of the specialist in his remedy, we conceive to be shown in such wholesale statements as the following:—

“Again we inquire what there is in a case of morbus coxarius, or in ulceration of any of the joints, to destroy life, when the treatment by ‘*continued elastic extension*’ is practised from the commencement? We can see no reason, neither has our experience, covering as it does a period of many years, presented a single instance to lead us to doubt this conclusion. We think the time is not far distant when our professional brethren will fully agree with the statement we made in 1860, before the Academy of Medicine of this city, viz., that a patient ought never to die from the direct effect of either morbus coxarius, white swelling, ulceration of the vertebræ, or of any other joint.”

Happy indeed the surgeon, or the Hospital, which could claim such results.

First, in regard to Fractures, we would notice what seems to be a very excellent mode of treating fracture of the patella, by a double extension strip coming down on each side of the foot, and the adhesives crossing each other above the patella, and covering, obliquely, the whole muscular expansion of the *quadriceps extensor femoris*. This would promise to be much more effectual than the old method by position only, since it pulls on directly and exhausts the muscular agents of displacement.

Next, on p. 33, in treating of intra-capsular fracture of the femur, stress is laid upon the line of fracture being usually oblique, and upon the existence and preservation of certain ligamentary fibres of the capsule, or the periosteum, which may remain unsevered, and afford a

nucleus for callus to become deposited around. This attachment is frequently broken by the surgeon in his examination, when greater shortening at once occurs.

On pages 80 and 81, a case is given of a young lady treated at the Massachusetts General Hospital for morbus coxarius, but considered by the author to have been chronic rheumatic arthritis, and successfully treated by extension.

On page 93, is revived the rumor of one of those accidents in treatment, which, if they occur, ought never to be published of a professional brother.

Talipes is successfully treated by continued elastic extension to overcome the contracted and shortened ligaments and muscles, and plates of ingenious and simple apparatus are given.

The restoration of *genu-valgum* seems to us to be more philosophically accomplished by the author's mode of restoring the strength of the enfeebled and deformed muscles and joints, than by any cumbrous fixed apparatus.

Dr. Davis mentions one indication of a lateral curvature of the spine with rotation, not described by others: "A person that has a decided curve of the spine with gyration, will apparently take a long step with one foot, and a shorter one with the other. This arises from the fact that the pelvis does not stand parallel with the chest, consequently one limb stands a little in advance of the other, and retains this difference in walking."

In joint-disease, rigidity of the muscles is properly insisted on as a diagnostic symptom. Mr. Cooper Forster was the first to mention the constant presence of false, muscular ankylosis in disease of the hip, we believe.

Many excellent diagnostic points of Pott's disease of the spine are given, as the following: "The child prefers quietude; is unable to join in the sports of his companions, without desisting and resting, from shortness of breath.

"He seeks at all times to support the back by placing his arms on table or chair.

"In stooping to pick something from the ground he bends both the hip and knee joints, and gradually lowers his body upright, until his hands can reach the object, when he as gradually and carefully rises to the erect posture again.

"The pain attending this deformity is peculiar, and is felt around and in front of the body, and not so much over the spine.

"Pain in the stomach is complained of when the disease is in the dorsal portion of the spine.

"Stiffness of the spine is noticed in all postures and movements.

"The patient walks more than usually erect, with the arms and shoulders thrown back."

Treatment by mechanical support is advocated, to the exclusion of the supine position; which latter we believe to be more effectual.

On the whole we may thank the author for a pretty complete monograph on his specialty; and whether all his claims to priority be allowed, or not, credit is due to him for an ingenious adaptation and employment of the extension by adhesive strips of Dr. Crosby, the use of vulcanized rubber, which has wrought a revolution in surgical apparatus, and the raising of the foot of the bed, or counter-extension

by the perineum, and extension by weight and pulley, usually ascribed to Dr. Buck.

The most unpleasant part of the book to discuss is the concluding chapter on the controversy between the author and Dr. Sayre, as to priority of discovery in the use of the splint for morbus coxarius.

According to Dr. Davis he had fully established the treatment of hip disease by "continued elastic extension," in 1856, and his cases and treatment had been published in 1857.

To use his own words, "At the close of the year 1859, there came into my office an entire stranger to me, and introduced himself as Dr. Sayre, of New York, saying that he came 'to inquire about my mode of treating Hip Disease,' remarking, 'that he had heard much about it, and would like to have it explained to him.' I cheerfully complied; explained the principle, and took him to see a case. He expressed himself highly gratified. He then wished me to see a case of his, where he had divided the tendons, which I did, and applied my splint.

"In less than three months, Dr. Sayre published a paper in the 'American Medical Monthly,' claiming as his own all these discoveries in the treatment of joint diseases. The next month he read a paper before the American Medical Association, claiming these discoveries as his own; and received congratulations on the importance of the discoveries he had made. In publishing this paper, however, he alluded to my splint."

Dr. Post, Chairman of a Committee of three Surgeons appointed by the New York Academy of Medicine to investigate Dr. Davis's mode of treatment, says, "There is no question but that Dr. Davis is entitled to the credit of having introduced this method of treatment to the profession;" "the methodical application of the treatment is due to him, and were it not for him the profession would have known nothing about it."

Comment is needless, except to say that this is a just excuse for much of Dr. Davis's acerbity.

A Practical Treatise on Diseases of the Skin. By J. MOORE NELIGAN, M.D. Fifth American from the Second Revised and Enlarged Dublin Edition. By T. W. BELCHER, M.D., Physician to Dublin Dispensary for Skin Diseases, &c. Philadelphia: Henry C. Lea. 1866.

To the busy practitioner who desires to know if anything has been done in dermatology since Neligan published his first edition, this volume would furnish interesting matter for examination. The editor seems to have carefully consulted what has been written in books and medical journals since that time, and has attached to the original matter brief statements of the views of such writers under their appropriate divisions. It makes thus a medley of opinions relative to the pathology and treatment of skin diseases which must be very confusing to the physician, and is altogether inappropriate to the requirements of the student. First comes the substance of the author arranged under the old system of classification of Willan slightly modified, with a statement of the editor's approval or dissent in many cases; and then follow short notices of the heterogeneous and contradictory opinions of modern writers, leaving a very indefinite impression of the whole subject upon the reader's mind. The book is no longer

Neligan's Treatise on Diseases of the Skin, nor does it serve the purpose of making one properly acquainted with the present state of Dermatology. The Editor has failed in attempting to combine the two projects in one book.

We notice a good many errors in the text, for which very likely the American reprint is answerable.

A Manual of Auscultation and Percussion. By M. BARTH and M. HENRI ROGER. Translated from the Sixth French Edition. Pp. 161. Philadelphia: Lindsay & Blakiston. 1866.

THIS little book contains a clear and concise account of the principles upon which these all-important methods of diagnosis are based, of the physiological action of the organs to which they are applied, and of the modifications in the physical phenomena they exhibit in their various pathological conditions. We can recommend it both to student and practitioner as a reliable and convenient manual.

Notes on Epidemics. For the Use of the Public. By FRANCIS EDMUND ANSTIE, M.D., Senior Assistant Physician to the Westminster Hospital. First American Edition. Philadelphia: J. B. Lippincott & Co. 1866.

THIS useful treatise of one hundred pages appeared originally in the *British Quarterly Review*, and was published in its present expanded form to furnish information to the non-medical public concerning the nature, premonitory symptoms, and means of prevention of epidemic and contagious diseases. It is in no way intended to serve as a book of domestic medicine, but to point out the character of those symptoms which demand the immediate presence of the physician. It contains an introductory chapter on the general causes of epidemics, and the importance of the popular use of the thermometer as a test of the seriousness of any threatened disease. The remainder of the volume is devoted to an account of Relapsing Fever, Typhus and Typhoid Fevers, Cholera, Epidemic Diarrhoea, Scarlet Fever, Diphtheria, Measles, Smallpox, Whooping Cough, and Influenza.

The American Editor, Dr. William A. Hammond, has done well to re-publish the book for our people, and we hope it may have a wide circulation.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 24, 1867.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY FOR THE YEARS 1865 AND 1866.

THE Transactions of the Medical Society of New Hampshire for the past two years, which have just reached us, are full of interest, and give evidence of an active, intelligent, philosophical spirit among its members, which augurs well for the professional care of the commu-

nity in which they live. The publications consist in the main of eight papers, none of which lay any claim to the ambitious title of monograph, but which are full of practical hints and suggestions, and in most instances show their authors to be well read and learned in the history as well as the science of medicine. Coming from men engaged in the active duties of their profession, in a State which does not contain any very large cities or towns, at least when compared with the large commercial centres of the country, these gentlemen have not ventured to cumber the annals of medicine by any ambitious attempts at laying down new laws, or any hasty and ill-digested views based upon a too-limited experience. Instead, they have given us good sense, sound judgment, reports of interesting cases accurately observed, a wise conservatism in discussing some of the ultraisms of the time, the whole inspired by a high sense of professional honor and accountability. We have rarely met with a collection of similar papers which contained so little that is commonplace.

The annual address for 1866, by the President, Dr. W. D. Buck, of Manchester, is a brief sketch of some of the most noticeable points in the present condition of the medical profession. It is not devoted to the too common glorification of physicians, but while it points out some of the most noted instances in which medical science has advanced of late, it refers with marked emphasis to the dark questions which still baffle our inquiries. Touching upon the different departments of medical science, the author avails himself of the occasion to give some of the practical results of his own experience. His cautions against the narrow-mindedness which exclusive attention to a specialty or an over-anxiety to do surgical operations is apt to generate are timely and wise, and illustrated by a genial humor which has a telling effect. Here is a paragraph from what he says of the prevailing mania for over-treatment of real or imaginary uterine disease; somewhat burlesque perhaps, but not without a strong infusion of truth:—

“It seems to me that just such a raid is being made upon the uterus at this time. It is a harmless, inoffensive little organ, stowed away in a quiet place. Simply a muscular organ, having no function to perform save at certain periods of life, but furnishing a capital field for surgical operations, and now-a-days subject to all sorts of barbarity from surgeons anxious for notoriety. Had Dame Nature foreseen this, she would have made it iron-clad. What with burning and cauterizing, cutting and slashing, and gouging, and spitting, and skewering, and pessaring, the old-fashioned womb will cease to exist except in history. The Transactions of the National Medical Association for 1864, have figured one hundred and twenty-three different kinds of pessaries, embracing every variety, from a simple plug to a patent threshing machine, which can only be worn with the largest hoops. They look like the drawings of a turbine water-wheel, or a leaf from a work on entomology. Pessaries, I suppose, are sometimes useful, but here are more than there is any necessity for.”

But we have not space to analyze minutely Dr. Buck's discourse, and must dismiss it with the remark that the honor of electing him President of the Society was evidently well bestowed.

Passing by the Address from the President of Dartmouth College,

Dr. Albert Smith's paper on the Abuse of the Topical Treatment of Diseases of the Uterus, Dr. Charles F. P. Hildreth's oration on the "True Practice of Medicine," the Report on Surgery by Dr. A. H. Robinson, and others, all of which are worthy of particular notice, we come to a paper by Dr. A. B. Crosby, on the Significance of Pain, which just now is deserving of special consideration. It is an argument to show the truth of the following propositions:—

"That pain is not an unmixed evil, but is a beneficent gift of God designed for the self-preservation of all animals, and that each is endowed with this sense to an extent only sufficient to insure this result."

"That even in disease pain is not an unmixed evil, but, on the contrary, is one of the most valuable pathognomonic signs."

"That the intensity of pain is largely dependent upon the mental condition of the person suffering."

Of course it cannot be claimed that these propositions are entirely new; but in the search after new truth men are too apt to overlook the old, and need to have it *re-presented* at times to keep them from running into vagaries and extravagances. The essay of Dr. Crosby contains many interesting facts and suggestive thoughts. Its arguments are ingenious, and it gives evidence also of the general culture of the author. A number of curious anecdotes which he relates, illustrative of the want of sensibility of the lower animals to pain, have much significance in connection with the subject of vivisection, although he does not himself mention them with this object. The following instance, which occurred under his own observation, is a case in point:—

"During the bloody battle of the Fair Oaks I saw the fore leg of a horse carried away by a solid shot. He fell but made no noise, and so far as I could see gave no evidence of pain. On the contrary, he soon struggled on to his three legs and commenced feeding. In stooping I saw the stump frequently strike the ground, but the horse gave no signs of disturbance. During the engagement the Federal forces were driven back some two miles before the impetuous onset of the rebel army, and I lost sight of him. Thirty-six hours afterwards, the lost ground having been recovered, I was ordered by Gen. Casey to scour the field with a corps of surgeons and ambulances for the relief of the wounded abandoned on our retreat. Among the first things that fixed my attention was the same horse which had survived the battle, quietly feeding, surrounded by the killed and wounded as they had fallen in the fight. The horse looked in good condition and seemed to pay no attention to the mutilated leg, although the bone protruded through the soft parts and the wound was filled with maggots."

Numerous other instances of similar insensibility are given.

Dr. Crosby's remarks on the significance of pain are practically important. Thus, in the case of young children, he says:—

"The significance of pain in young children might not at first seem to be easily translated, yet, if carefully watched, the signs of pain in infants are quite as constant and less frequently perverted than the same signs in adults. The cry of pain in these little ones is obstinate and long continued. If the cry is smothered and the respiration hurried, we are to look to the thorax for the cause of the pain. When

the cry is husky, the pain is generally due to some catarrhal affection, either of the larynx or trachea. When the pain is sudden and severe, as from the prick of a pin, from colic, from peritonitis, or other abdominal pain, the cry is short and rapid. When the child persists in screaming and rolling the head, the pain is generally located about the brain. It is not uncommon for infants to place their hands on the point of distress, and a physician may often entirely unravel the case by employing pressure over the different organs *seriatim*, at the same time watching the expression of the face. This matter of the relation of pain to the diseases of children is one of great importance, and could be profitably dwelt upon at length would our limits permit."

In conclusion, we may say that Dr. Crosby has sustained his propositions most ably, and his whole essay is worthy of the most careful reading. We regret that space is wanting for a more extended notice of the papers before us; they all contain valuable suggestions and do credit to their authors.

Population of Massachusetts.—We have received the following note from Dr. Allen in reply to Dr. Derby's article in last week's JOURNAL. We cannot forbear the remark that we hardly think Dr. Derby's language deserves the harsh interpretation put upon it in the last sentence:—

In the article of Dr. George Derby, in the MEDICAL JOURNAL of Jan. 17th, referring to a previous article upon the "Increase of Population in Massachusetts," I wish to correct a mistake. In comparing the cities, counties and towns containing the greatest, and the least, of the foreign element, as to the relative number of births and deaths between this class and the American, it was found by the Registration Reports that there were over thirty towns in the State which did not report a single foreign birth. The natural inference was that these towns contained scarce any or no foreign population. The deaths must be composed principally, if not wholly of the American class. Now the whole aggregate number of deaths in these towns by the Registration Reports both for 1864 and 1865 exceeds the number of births. As to the *assertions* of Dr. Derby in respect to some other points in the article referred to, or as to his *charge* impugning the *motives* of the writer, no reply at present is deemed necessary.

Nominations for Brevet Rank in the U. S. A. Medical Department.—(Concluded from page 512.)—To be Colonels by brevet, Brevet Lieut.-Colonel and Surgeon John J. Milhan, for gallant and meritorious services during the war, to date from March 13, 1865, Brevet Lieut.-Colonel and Surgeon Joseph R. Smith, for meritorious services and devotion to the sick during the prevalence of cholera at Little Rock, Arkansas, to date from November 22, 1866.

To be *Brigadier-Generals* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Brevet Colonels and Surgeons Charles S. Tripler, Charles McDougall, and Joseph J. B. Wright; also Brevet Colonel and Surgeon William J. Sloan, for meritorious and distinguished services at several military posts in New York Harbor, where cholera prevailed, to date from September

28, 1866; Brevet Colonel and Surgeon Joseph B. Brown, for meritorious and distinguished services at Fort Columbus, New York Harbor, where cholera prevailed, to date from September 28, 1866; Brevet Colonel and Surgeon John J. Milhau, for meritorious and distinguished services at Hart's Island, New York Harbor, where cholera prevailed, to date from September 28, 1866.—*Medical Record*.

Municipal Munificence.—The municipality of Brussels have offered the very handsome sum of sixteen pence a day as a recompense for services rendered by the medical profession during the last epidemic of cholera. M. Vleminckx, a leading practitioner of the city above mentioned, spiritedly writes to the authorities that his brethren could have borne to have been simply thanked, but that they deny the right of any corporation or individual to offer men who have displayed skill, courage and endurance, the paltry remuneration in question.—*Ibid*.

The "Poor Man's Filter."—In the food department of the South Kensington Museum stands the "poor man's filter." It is an ordinary flower-pot, plugged (not tightly) at the bottom with sponge. A layer of coarsely powdered charcoal, about one inch thick, is placed in the bottom of the pot, then another layer of sand of the same thickness, then pebbles, coarse gravel, and stones are placed on the whole. This forms an admirable filter, and one within the reach of the poorest.—*Medical and Surgical Reporter*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 19th, 1867.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	39	40	79
Ave. mortality of corresponding weeks for ten years, 1856—1866	43.4	38.8	82.2
Average corrected to increased population	00	00	90.56
Death of persons above 90	0	0	0

NOTICE.—In order to continue the uniformity in the practice of commencing a new volume of the JOURNAL annually in the first week of February, twenty-seven numbers are required and will be given in the present volume, and No. 1 of Vol. LXXVI. will be issued on the 7th of the ensuing month.

PAMPHLETS RECEIVED.—Treatment of Fracture of the Lower Jaw by Interdental Splints. By Thomas Brian Gunning, New York.

MARRIED.—In this city, 13th inst., Artemas I. Fenn, M.D., to Mrs. Frances L. Graves, both of Boston.

DIED.—At Chelsea, after a lingering illness contracted during the war, Dr. John C. Barrington, formerly Assistant Surgeon of the 28th Mass. Vols., and afterwards of the 2d Mass. Heavy Artillery.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 19th, 79. Males, 39—Females, 40. Accident, 3—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 7—inflammation of the brain, 1—bronchitis, 1—cancer, 2—consumption, 8—convulsions, 1—croup, 4—debility, 1—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—drowned, 1—erysipelas, 1—exposure, 1—scarlet fever, 4—spotted fever, 1—hemorrhage (from the ear), 1—infantile disease, 2—disease of the kidneys, 3—inflammation of the lungs, 7—marasmus, 2—old age, 4—peritonitis, 1—puerperal disease, 1—smallpox, 3—disease of the spine, 1—tabes mesenterica, 1—teething, 1—unknown, 5.

Under 5 years of age, 37—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 61—Ireland, 16—other places, 2.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 27.

SURGICAL CASES, FROM THE RECORDS OF THE CITY HOSPITAL,
BOSTON.

[Reported for the Boston Medical and Surgical Journal by DAVID W. CHEEVER, M.D.,
one of the Visiting Surgeons.]

Tenth Paper.—THREE CASES OF DISLOCATION AND FRACTURE OF
THE SPINE. TREPHINING THE SPINE, IN ONE CASE.

CASE I.—*Dislocation of the Fifth and Sixth Cervical Vertebrae.*—June 15th, 1866. Michael B., æt. 21. At 7½ o'clock last evening patient was swinging upon a chain across the back of a wagon, when he lost his balance, fell backwards, and struck upon his head and neck. He did not lose his consciousness, but was unable to move his body or extremities. Some officious friends applied a blister to his neck. He entered the Hospital at 10½ A.M. Pulse 60 and full. Respiration quiet, but wholly abdominal. Diaphragm contracting well. Head thrown back. Slight priapism. Paralysis of sensation and motion of entire person below the nipples anteriorly, and below the seventh cervical vertebra posteriorly. Slight sensibility just above elbows, increasing as you ascend. No reflex action. Body warm. Retention of urine and fæces. Patient could rotate his head through an arc equal to one fourth of a circle, and could move it somewhat forwards and backwards, though nodding occasioned pain. He could also bend his neck laterally, but slightly.

The seventh cervical vertebra, and all below it, appeared to be uninjured. The fifth and sixth cervical, over which there was an effusion and swelling, seemed abnormally elastic on pressure. The vertebrae above could not be felt. No crepitus.

Patient was carefully put to bed, and his urine drawn. At half past one, P.M., his pulse was 48; at three, 44; at night, 56 to 64, and irregular. Speaks of tingling below elbows.

June 16th.—Pulse 64; respiration distressing and more frequent, averaging 36. No thoracic respiration; chest as still as a marble statue. Diaphragm working less forcibly. Amount of air inspired is small. Action of heart labored. Tympanites of abdomen. No

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facial paralysis. Mind perfectly conscious. Swallows and talks well. Entire paralysis of arms, legs, trunk, bladder, &c.

5, P.M.—Pulse more irregular, and feebler; respiration 32; expiration noisy. Eats gruel. Moves his head from side to side. Talks incoherently. Speaks slowly, with great effort to articulate; words lagging.

8, P.M.—Respirations 28; pulse 50; both irregular and interrupted. Speaks with extreme effort.

9½, P.M.—Respiration gradually became slower and more shallow, until he died—fifty hours after the accident. No autopsy allowed.

CASE II.—*Probable Dislocation, and perhaps Fracture, of the lower Cervical Vertebrae.*—Sept. 20th, 1866. Mr. N. B., a caulker, of middle age, while overseeing his men early in the morning, some frost having formed during the night, slipped while crossing from a ship to the wharf, and fell down between them. It being low water at the time, the distance fallen must have been considerable. He fell into the water and dock-mud, striking, as he fell, on the back of his neck, on a fender at the side of the vessel. His groans attracting attention after a short time, he was taken up, quite conscious, but paralyzed entirely below the neck. He was now conveyed in a carriage several miles to his home, and I saw him about 12 o'clock.

He was sitting propped up in a chair, with his legs raised upon a second chair, to prevent his sliding down upon the floor. His thorax was flexed upon the pelvis; his neck was bent forwards, and his arms hung helpless by his sides. He was quite conscious; protruded his tongue straight and easily; his pupils were normal; his pulse feeble and rather slow. He said he had no feeling below his neck.

His wet clothes were cut off, and he was carefully put to bed—his head propped on a pillow in the position he desired. Warmth was applied to the feet and to the surface of the body; stimulants were given; his urine drawn off. He was rolled on to his side, and the back examined. Tenderness and effusion were found over the posterior cervical region. It seemed as if the vertebrae just above the seventh cervical were depressed forwards. No mobility nor crepitus could be felt. Paralysis, both of sensation and motion, was total below the neck. The respiration abdominal. There was partial priapism. He was evidently in a state of shock.

6, P.M.—Strong reaction had come on. His pulse was full and slow; the body warm and moist; the mind perfectly clear and active. Paralysis was entire. A small amount of urine was drawn off. The walls of the thorax were perfectly motionless. The diaphragm was working forcibly. No symptoms of cerebral lesion.

Sept. 21st.—At 5, A.M., I was called to him in haste and found him sinking. His respiration was slow and imperfect; his skin livid; the pulse feebler and slower; the mind affected by venous blood; mucus had collected in the bronchi, and could not be expecto-

rated. His pulse and respiration grew slower and fainter until he died, about twenty-four hours after the receipt of the injury. No autopsy.

According to Mr. Alexander Shaw,* "It is a melancholy fact that, in general, when the spinal cord is destroyed in the upper dorsal and the cervical regions, the main question is, merely, how many days is the patient likely to survive the fatal injury? In such cases the principal cause of mortality is the greater or less interruption to the operation of breathing.

"The whole series of intercostal muscles, as well as the abdominal parietes, will be paralyzed. To explain how the process of respiration can be carried on in that defective condition, it has been thought sufficient to affirm, without discussion, that it is effected by the diaphragm exclusively. It is said that the phrenic nerve, which controls that muscle, emerging from the spinal canal above the fourth cervical vertebra, while it remains uninjured, will cause the diaphragm to contract; and when it relaxes, the weight and elasticity of the abdominal parietes will cause it to recede into the thorax, and expiration will take place.

"But between the fourth and fifth cervical vertebræ emerges the external or long thoracic nerve, the external respiratory nerve of Bell, which supplies the serratus magnus muscle. That muscle has a strong inspiratory power, when the shoulders are fixed. And as a certain tendency exists in the diaphragm, owing to its attachments to the ribs, when it contracts powerfully, to depress and draw together the lower margins of the thorax, the counteracting power of the serratus must exercise an important influence in making inspiration perfect.

"It may, therefore, be concluded that, in fractures of the vertebræ of the neck, if the spinal cord retains its function as low as the sixth, the diaphragm will have the coöperation of the serratus magnus muscle. And that assistance will be valuable for expiration as well as inspiration; for in proportion as the thorax is more elevated, it will descend with greater force by its elasticity, in expiration, and so expel the air from the lungs more effectually.

"Very frail, however, is the tenure by which a patient who has suffered fracture of the cervical vertebræ holds life. The causes which cut him off early are twofold:—

"1st. Owing to paralysis of the abdominal muscles, tympanites of the abdomen comes on and pushes up the diaphragm.

"2d. The mucus naturally secreted in the air-passages accumulates, owing to the inability of the patient to expel it by coughing. The blood becomes imperfectly oxygenized, and death is ushered in by coma."

CASE III.—*Fracture of the Laminæ and Spines of the second and third Dorsal Vertebræ, and of the Spines of the fourth and fifth; total*

* Holmes's Surgery, vol. ii. p. 212.

Paralysis below the Nipples; Trephining of Spine, with Restoration of Motion and Sensation; subsequent Emphysema of Chest, and Death, apparently, from Pneumothorax.—Jan. 14th, 1867. A. B., æt. about 40, while at work just after the noon rest, fell from a considerable height and struck upon his back and occiput. He was taken up conscious, but paralyzed in the legs and trunk. He became gradually more unconscious and feebler.

When I saw him, at half past two, P.M., his pulse was quite feeble, and his respiration very small and entirely with the diaphragm. He could be easily roused to consciousness. There was no stertor. His pupils were contracted. There was partial priapism and retention of urine. The legs and trunk entirely helpless. The extremities warm. Bruising, and crepitation of broken bone were very evident between the scapulæ. He objected to having his head moved at all. He appeared to be suffering from shock, partial concussion of the brain, and pressure on the upper dorsal portion of the spinal cord. His pulse and respiration were failing, and it was evident that he must soon sink, unless relieved. He refused to swallow, but was stimulated by alcoholic enemata.

Having in my mind the miserable end of the cases just related, I had determined to trephine the spine, should another similar accident present itself. This patient had a perfectly evident fracture of the vertebral column in the upper dorsal region—a region more favorable for operation than the neck. If anything were to be done, it must be done immediately.

The patient was turned partially over upon his face, and an incision made over the fracture. The finger now entered a bruised and softened space, in which could be felt the broken ends of several spinous processes. On dissecting down upon and removing these, the laminæ were found to be broken. Segments of the arches of four vertebræ were removed with the trephine, elevator and tooth-forceps. The cord was now freely exposed, and seemed intact in its membranes, except a small spot at the upper border of the wound, where an appearance, which might be a laceration, presented itself. There was free venous hæmorrhage, but it ceased spontaneously. The rough edges of the laminæ were trimmed off with the gnawing forceps. The cord appeared to be free from pressure, both above and below the wound. No injury of the head was found. But emphysema began to appear on the right side and front of the thorax. The condition of the patient did not undergo much apparent change. The wound was left open. He was placed in a semi-supine position in bed, and stimulated, alternate hours, with alcoholic and beef-juice enemata.

Jan. 15th, 9, A.M.—Entirely conscious; protrudes tongue; swallows; talks. Pulse 108, considerably fuller. *Respiration* 30, and *thoracic*; every intercostal muscle seen to be contracting well in inspiration. Some dyspnoea. Emphysema moderate, under pectoralis

major of right side. Chest tympanitic. Respiration obscure. Priapism gone. Can feel slight touch with finger as low down as knee, but not lower. No hæmorrhage from spinal wound. Has been able to hold interviews with his wife and family.

From this time he began to fail. The pulse ran up to 160. The respiration became very rapid and distressing; the thoracic muscles moved with the diaphragm to the last. The breathing was short and catching, as if the lung were oppressed, but not paralyzed. He died about twenty-four hours after receiving the injury. No autopsy could be obtained; but there seems reason to conclude that he died of fractured or dislocated ribs, wound of the costal and pulmonary pleuræ, and pneumothorax, since his respiration, pulse, and mode of death differed totally from the other cases. They died with a pulse of 40, and a respiration growing slower and slower. He died with a pulse of 160, and a spasmodic and exceedingly rapid breathing.

Trephining the spine and raising the depressed laminæ restored the inspiratory power of the intercostal muscles and relieved the diaphragm; it restored, also, the trunk and thighs to sensibility.

If no lesions had existed in the chest, there would seem to be reason to have hoped for a favorable result. Immediate death from pressure on the nervous centre was averted, at any rate, and life prolonged. Reasons enough, surely, to follow up the operation of trephining the spine in an uncomplicated case.

Why should we not accept the only alternative from sure and speedy death which can be offered us? And especially so since Dr. Brown-Séquard, as we understand him, gives a certain percentage of recoveries, and considers the operation less dangerous than trephining the skull.

CEREUS GRANDIFLORA, CACTUS GRANDIFLORA (LINN.), NIGHT-BLOOMING CEREUS, SWEET-SCENTED CACTUS, &c.

By A. F. PATTEE, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

NATURAL ORDER—Cactaceæ.

Generic Characters—Stem creeping and rooting five to eight angles; flowers terminal and lateral, very large, showy; sepals brown on the outside, yellow within; petals white, spreading, shorter than the sepals.

Specific Distinction—Flowers bloom by night, commencing at twilight, withering as night advances, close and die before the dawn of day. Stem branching, armed with numerous clusters of spines. The stem is mucilaginous.

Habitat—Mexico and West Indies, and cultivated in Spain, Italy and some tropical countries, and hot-houses of the United States.

History.—The plant was used by the natives of Mexico previous to the conquest, for the cure of numerous diseases, such as intermittent fever, irritation of the urinary organs, and other maladies incident to the country. It was introduced into Germany as a therapeutic agent by Dr. Scheele, and lately brought to notice by Dr. Rubini.

Physiological Effects.—This cactus is sedative to the nervous and circulatory systems, and acts on the kidneys. Given in the regular medicinal doses, repeated at the proper intervals, and gradually increased if necessary, it is found to diminish the frequency of the pulse, and increase the secretion from the urinary organs largely; it is of great service in the treatment of dropsical diseases. In large doses it is irritant to the stomach, and has a peculiar effect upon the brain, producing mental confusion, hallucination and slight delirium.

REMEDIAL EMPLOYMENT—Diseases of the Heart.—The cactus was recommended as a specific in diseases of the heart, and it is in this disease that it has been used almost exclusively. That it has a very decided action on the heart we are well satisfied. It relieves irritation of this organ, whether dependent on local causes or due to reflex action from disorders of the stomach, lungs, or other viscera. The following case will illustrate its use in a complicated functional heart affection.

Mr. D. W., æt. 60; married; father of several children; health always good; an inveterate smoker. In January, 1866, he was troubled with palpitation, with irregularity of the heart's action on the slightest exertion, and great dyspnœa on lying down. His physician pronounced the case to be one of structural disease, and told the patient he was liable to die at any time. The disease continued to progress, the lower limbs becoming anasarcaous; he was examined by a number of prominent physicians, who concurred with the attending physician with regard to the diagnosis and prognosis. We advised him to try the tincture of cactus in five-drop doses three times a day in water, and discontinue all other medicine. He commenced taking the medicine Oct. 1st, 1866, and with the most happy effect; the dyspnœa gradually disappeared, the limbs gave up their water, and at the present time the patient is able to rest all night in the horizontal position, and the action of the heart has become regular. I have used this remedy in many other well-marked cases, with much benefit to the patient.

This remedy is contra-indicated in diseases of an inflammatory nature with acute symptoms. In cardiac rheumatism, combined with bi-carbonate of potash, I have found the cactus worthy of confidence. In the condition of the heart which is generally associated with anæmia, and in which the tissue of the organ is enfeebled by defective nutrition, the cactus is indicated, in combination with chalybeates, the mineral acids and other tonics, to improve the character of the blood. An important incidental advantage in these cases is, frequently, its

effect in removing the dropsical effusion, whether in the pericardium, the other serous cavities, or the general areolar tissue.

Functional Palpitation of the Heart.—Perhaps in no affection does cactus act more favorably than in palpitation, either from plethora, anæmia, or merely nervous disorder; but the remedy is applicable only to the cases in which the affection has a certain degree of permanency, and not at all to those occasional and fugitive attacks which occur under passing excitements.

Administration.—The tincture is preferred, as it is supposed to keep better; and, in order to ensure uniformity, it should be *saturated*. Take of the fresh stem and flowers of the cactus four ounces, ninety-five per cent. alcohol one pint; macerate for one month and filter. The dose of this tincture is from one to five drops three times a day; if no effect is produced upon the disease in the course of three or four days, the dose should be gradually increased until unequivocal symptoms of its operation are manifested.

We believe, in conclusion, that if the profession will test the virtues of the cactus, there will be few who would be willing to dispense with its use.

GUN-SHOT WOUNDS OF THE PELVIC VISCERA.

WÜRZBURG, January 2d, 1867.

MESSRS. EDITORS,—While acting as voluntary assistant surgeon in one of the temporary military hospitals in this city, during the months of August, September and October of the past year, I had occasion to observe several hundred cases of more or less interesting gun-shot wounds, among which were three injuries of the pelvic viscera, which, on account of the dangerous and rather rare nature of the wounds, appear to me worthy of description. My attention was perhaps attracted the more to them since, during a service of about six months in one of our large military hospitals during the late rebellion, I did not happen to see a single case of perforating gun-shot wound of the pelvis; and here, in a small hospital of barely 150 beds, I met with three instances at the same time.

CASE I.—Johann Graef, bugler of the 8th battalion of rifles, Bavarian Army, 27 years of age, was wounded by a bullet from a Prussian needle-gun, July 26th, 1866, at the battle of Rossbrunn, a village distant some ten English miles from Würzburg. The ball had entered the right nates at the upper and inner portion of the greater sacro-ischiatic foramen, doubtless pierced or torn away one side of the rectum, passed through the base of the bladder and emerged on the right side of the scrotum; for, on his arrival at the hospital on the night of July 31st, we found the urine running freely from the anterior wound, the scrotum enormously distended and gangrenous from the presence of the urine in the cellular tissue, and the fæces

protruding from the posterior opening. The sufferings of the patient were so severe that he begged the attendants to shoot him. There was no discharge of fæces from the anterior wound, which fact leads me to believe that only the right side of the rectum was injured; for if the ball had pierced the centre of the intestines, the fæces would have passed equally through both openings.

An attempt had been made on the field to catheterize the man, but in vain, the catheter absolutely refusing to enter the bladder. Cold compresses and one quarter of a grain of morphine were ordered; the dose of morphine not allaying the pain, it was thrice repeated, after which the patient passed a tolerably quiet night. The next day the pain was again so intense that, after several doses of morphine in powder and by means of subcutaneous injection had been administered without success, recourse was had to chloroform, by which the patient was kept in a condition of semi-consciousness. To remove the constipation enemata were tried, but without success, the injection flowing out at the posterior opening. On Aug. 2d he was placed in a warm bath, in which he expressed himself much relieved, remaining in it over four hours. The baths were repeated every day as the only means of relieving his sufferings, but their result surpassed all expectation. They promoted the discharge of the gangrenous parts, which were thrown off August 9th, leaving the left testicle intact, but only partially covered with sound skin. At the right side of the penis, immediately below the pubic arch, the urine could be seen trickling through a small opening, which admitted the passage of a probe into the bladder. Denuded bone was not to be felt, either through the anterior or posterior opening. When not in the warm bath, the wounds were treated with cold-water compresses, and the adjoining parts covered with simple cerate, to prevent excoriation by the urine. He now began to show some appetite, and was allowed fish, eggs, and a glass of wine daily. He could sleep after only one dose of one quarter of a grain of morphine now, and there appeared some hope of his recovery. Two small abscesses which formed on the hand and thigh were opened, and healed readily. An attack of pain, swelling and heat in the right inguinal region was removed by leeches and warm-water compresses, and the condition of the patient improved from day to day. During one of the baths he had a voluntary operation of the bowels per anum, and they were henceforth kept regular by means of enemata or laxatives.

About Aug. 20th the left testicle was nearly covered by skin, the anterior opening had become exceedingly small, and at times the urine could be passed through the urethra. Micturition being painful and the urine appearing highly ammoniacal, injections of warm oil into the bladder were made with good results. The catheter could be passed without difficulty. He was now allowed full diet and a tumbler of wine and one of beer per day.

Aug. 26th, he complained of pain in the right lumbar region, ac-

accompanied by fever. We apprehended an acute nephritis, but were glad to see all symptoms disappear after applying hot-water compresses for two days and enforcing low diet. Towards the end of August the warm half-baths, which had been suspended for a few days, as they appeared to debilitate the patient somewhat, were replaced by a daily warm sitz-bath, which had the same cleansing and salutary, without the debilitating effects. The temperature of the baths at first was between 95° and 100° F., and was gradually reduced to about 80° . These sitz-baths were continued, with occasional intervals of a few days, until the patient left the hospital. The posterior wound was now healed, but, as the result proved, only temporarily.

During the first week of September he began to walk about the ward, and finally felt well enough to accept the invitation of the monks in the adjoining monastery to a glass of beer. The wound was occasionally touched with the stick of nitrate of silver, and was entirely closed about the middle of September, the urine passing freely through the urethra and the bowels being regular; the remaining testicle was perfectly covered by sound skin.

Sept. 22d, the posterior wound again opened, discharging feces and pus, but after touching with nitrate of silver it soon closed again, and, October 1st, appeared healed.

The appetite of the patient was very good, so good indeed that, notwithstanding orders to the contrary, he contrived to smuggle in eatables, and finally was seized, during the night of October 10th, with a violent fit of vomiting, by which both wounds were opened again, the posterior as well as the anterior one discharging urine. A collection of pus was found in the canal of the posterior wound, which was evacuated by means of an incision. Injections of a solution of nitrate of silver (gr. iv. to $\frac{3}{4}$ i.) were made into the posterior wound twice daily, and resulted in total closure of the canal by the 1st of November; the anterior opening had been touched with the solid caustic and had closed within a few days after the accident.

To make sure of a permanent cure, the patient was kept in the hospital till the first week in December, taking an occasional sitz bath; as the wound remained closed, and the man was able to walk about the city and felt as well as before his wound, he was discharged. He has since written, and reports himself as continuing well.

In this case the warm baths undoubtedly were chiefly beneficial in relieving the pain and cleansing the wounds, whereas the cold-water compresses, first stimulating by means of the cold and then promoting the multiplication of cells and consequently granulation by means of the moist warmth, hastened the healing of the injured parts.

CASE II.—Joseph Handwerger, private, 13th regiment, Bavarian Infantry, 25 years of age, was wounded by a Prussian bullet at Uettingen, a village a short distance from Rossbrunn, on July 26th. The ball entered in the region of the left greater sacro-ischiatic foramen,

passed transversely through the pelvis, probably injuring the rectum in its middle portion, and emerged on the right side at a spot corresponding to the point of entrance, without touching the bone. When brought to the hospital, July 31st, large quantities of frothy fæces passed freely from both wounds, which therefore required very frequent dressing. The patient was obliged to lie on his belly, which position he occupied almost exclusively during the first three weeks after entrance. The wounds were treated with cold-water compresses, an easily digestible diet was ordered, and the bowels were kept rather loose by means of laxatives. The general condition of the patient was good, and there were no signs of peritonitis or enteritis. August 8th, the patient had a violent chill, which was treated with aconite, two grains of the powdered extract being given every four hours; the rigor was repeated on the 11th, and three-grain powders of aconite were administered. Whether these had any effect I do not pretend to say; at all events the patient had no return of the chill, and improved visibly from day to day, the discharge of fæces ceasing sometimes from one wound and sometimes from the other for a day or two; both wounds had a fresh, florid appearance, with slightly callous edges.

Aug. 20th, he was placed in a warm bath, which relieved him very much and appeared to promote the activity of the bowels; it was accordingly continued, with appropriate intermissions of a day or two, until his discharge. An œdema of the lower extremities, which occurred about this time, was removed by compression with a roller bandage.

Sept. 3d, there was a natural and copious evacuation of the bowels, no fæces having been discharged from the wounds for several days. On the 6th, however, in consequence of an attempt to walk, in the absence of the surgeon, a profuse fæcal discharge from both wounds again took place, with violent febrile symptoms, which were speedily removed by a warm bath. Perfect quiet being enjoined, the wounds again resumed their healthy appearance, the left one especially healing so rapidly, that by September 12th it was entirely closed, and remained so till after his dismissal. From this time forth no more fæces were discharged from the right wound, the bowels partly operating voluntarily and partly being kept regular by means of laxatives. But as the pus from the wound was mixed with bubbles of air, there must still have been a communication with the intestine. As the wound appeared rather indolent and indisposed to heal, it was first treated with hot compresses of chamomile tea, which materially improved its appearance, and then injections of nitrate of silver (gr. iv. to ʒ i.) were made twice a day; these, although acting slowly, still fulfilled their object and brought about the almost entire closure of the wound by the 5th of November. Soon after, the patient began to walk about, and, calling at the hospital during the last week of November, I was informed by the surgeon

in charge that he had been discharged perfectly well a few days before.

I have heard, to my regret, within a day or two, that after the wounds had remained closed for six weeks, they opened again about a fortnight ago—probably in consequence of imprudence of some kind—and are now both discharging faecal matter.

CASE III.—Jacob Dachsbacher, private, 5th regiment Bavarian Infantry, 27 years of age, was also wounded at Uettingen, July 26th, the bullet taking almost the same course as in Case II., with the exception that it appeared to have entered on the right side and to have touched the rectum a little higher up in the concavity of the sacrum than in the previous case.

On his entrance, July 31st, the wounds discharged only pus; a few days after, however, the pus was mingled with faeces, which passed from both wounds. Cold-water compresses and light diet were ordered; enemata given through a long rubber tube were regularly followed by easy stools. August 20th, warm sitz baths were commenced and continued daily for three weeks, with the very best results, the right or entrance wound being almost healed and the faeces being discharged exclusively per anum. About the middle of September, both wounds were perfectly closed. The patient's right leg, however, was almost powerless, which fact causes me to believe that the ischiatic nerve has been injured or bruised near its exit from the great sacro-ischiatic foramen. On account of this latter trouble, the patient was retained in the hospital, and various stimulating applications were made without effect. About the middle of October both wounds again broke open, and showed the existence of canals of some depth, the left one especially allowing the introduction of a common silver probe up to the eye. No faeces or air were discharged, however. The left wound was closed by means of injections of nitrate of silver; a collection of pus appearing near the right wound, it was evacuated by an incision, and a seton was passed through the two openings and left *in situ* during a fortnight. This proceeding brought about the closure of the wound, and apparently, also, acted as a stimulant on the nerve; for, on visiting the patient a few days ago, I found both wounds apparently firmly closed, and the man able to move across the room with the help of a cane; whereas, before, he had hardly been able to lift the leg.

PAUL MUNDE, M.D.

THE Imperial Society of Bordeaux offers a gold medal of the value of 500 francs for an exhaustive memoir on the subject of embolism, especially in relation to the sudden deaths of puerperal women. The proportion of sudden deaths in different diseases, and especially in the puerperal state due to emboli, are to be duly set forth. The essays, written in French or English, are to be sent in by August 31, 1867.—*New York Medical Journal*.

CLINIC OF BERKSHIRE MEDICAL COLLEGE.

(Continued from page 504.)

Strumous Conjunctivitis.—Margaret D., æt. 10. Severe inflammation of conjunctiva; has also granular lids; ulcers on the cornea; is sometimes costive. *Treatment*.—Give first an alterative. *R.* Hyd. cum creta, gr. xv.; sodæ bicarb., ℥ iss. *M.* Divide in chart. No. vii. One to be taken every night. *R.* Acid. tannici, ℥ i.; glycerin., ℥ i. *M.* Apply locally morning and night.

Came again to clinic one week afterwards, very much improved; ulcers healing finely; not so much intolerance to light. *Treatment*.—Change from alteratives to tonics, as the great indication is to improve the general system. *R.* Potass. iodid., ℥ i.; ferri ammonio-citrat., ℥ i.; syrup. sennæ, f ℥ i.; aq. puræ, f ℥ iv. *M.* A teaspoonful to be taken three times a day. Continue the application of glycerotannin.

Came again three weeks afterwards, with great improvement, both local and general. Continue treatment.

Carcinoma Uteri.—H. S., æt. 45; married. Has had nine children. Has miscarried three times, the fœtuses being three or four months old; cause unknown. Has had intermittent cough for seventeen years, with frequent hæmoptysis; there is marked anæmia; has had menorrhagia almost constantly for two years. The patient was taken to the ante-room and examined by Prof. Storer. The uterus was found considerably hypertrophied, with little displacement; the os patulous; posterior lip considerably elongated—all resulting, probably, from cancer of the organ. She is subject to various forms of constitutional disturbance, such as severe irritation about the bladder, palpitation, probably on account of the loss of blood, and cough, occurring on account of the sympathy between the uterus and lungs. *Treatment*.—Live well, and pursue a tonic course of treatment. *R.* Ferri sulphat., ℥ i.; quiniæ sulph., ℥ i.; aquæ piperitæ, f ℥ iv. *M.* A teaspoonful to be taken three times a day.

Diarrhœa.—John L., æt. 17 months. Has been in poor health about three weeks; has always been somewhat constipated, yet seemed well and strong. Still nursing, but not regularly. Attack commenced with considerable diarrhœa and some fever, which has continued until now. At first the discharges were slimy, sometimes greenish, but now are tinged with blood; there has been some tenderness of the abdomen and bloating. Is cutting teeth; has six through, and the bicusps in the superior maxilla are making their appearance. Prof. Palmer remarked that we have here diarrhœa accompanied by congestion of the small and large intestines; that this is caused partly by the irregular nursing and the introduction of a larger amount of food into the stomach than it can digest well and its passage into the intestines, which causes irritation there—and partly by teething. *Indication*.—To change the secretions and abate

the inflammation. *R.* Mass. hydrargyri, gr. iij.; magnesiæ calcinat., gr. x. *M.* Ft. in chart. No. v. One to be taken every four hours until three are taken. If they act as a laxative it will suffice, if not give a little castor oil. *R.* Doveri pulv., gr. x. Divide in chart. No. xii. Give one after the third mercurial, and then every four hours. *R.* Sodæ bicarb., \mathfrak{z} ij. Put one half in a teaspoonful of water, and give a teaspoonful *pro re nata*.

Ulceration of Os Uteri.—Mrs. M., æt. 31 years. Married. Has four children, the youngest about four years of age; has generally been in good health until about five months since, when she began to have pain in the head and stomach; also in the lumbar region, with leucorrhœa. Has had one abortion—about one year since—brought on, as she says, by the aid of instruments. The patient was taken to the ante-room and examined. The uterus was found much enlarged; os ulcerated and patulous. Has profuse hæmorrhage; system much debilitated in consequence of this and shock to nervous system. *Treatment.*—*R.* Butyr. cacaô, \mathfrak{z} i.; acid. tannici, gr. v. *M.* Ft. into four balls. Use one every night. *R.* Ferri sulph., \mathfrak{z} i.; magnesiæ sulph., \mathfrak{z} i.; aquæ puræ, f \mathfrak{z} iv.; acid. sulphuric., q. s. *M.* Take a teaspoonful twice daily.

Patient returned one week afterwards; says she is much better; has much less gastric irritation and less leucorrhœa. *Treatment.*—An application of argenti nitras made to the os. *R.* Ferri et quiniæ citras, \mathfrak{D} i. Ft. in pil. No. xvij. Take one three times a day.

Ulceration of Os Uteri.—A. C., æt. 45. Was treated at College clinic, during session of 1865, for Graves's disease. At present, there is no enlargement of the thyroid gland, and the disturbance of the heart has abated. Presents a marked anæmic condition. Has suffered constantly for two years with leucorrhœa, and during the past year has from uterine hæmorrhage. Now, much debilitated, owing, no doubt, to loss of blood. The patient was taken to the ante-room and examined. Uterus found to be enlarged, both cervix and body; os patulous. The cervix is badly abraded; might be called ulcerated. There are large granulations about the os, and probably the hæmorrhage is to a great extent from these granulations. *Treatment.*—*R.* Tinct. ferri chloridi, f \mathfrak{z} ij. Take thirty drops three times a day, well diluted in water. Apply tincture of iron to the ulcerated surface. Patient returned to clinic four weeks afterwards. Has had no hæmorrhage for the past two weeks, but has had very disagreeable sensations about the epigastrium, with considerable headache and dizziness. Does not appear as anæmic as when last here. Prof. Palmer remarked that these unpleasant sensations are a natural consequence resulting from checking the hæmorrhage which has so long been a drain on the system. *Treatment.*—Another application of tincture of iodine to the cervix uteri.

Bibliographical Notices.

Surgical Clinic of La Charité. Lessons upon the Diagnosis and Treatment of Surgical Diseases, delivered in the month of August, 1865, by Prof. VELPEAU, Membre de l'Institut et de l'Académie de Médecine, collected and edited by A. Regnard, Interne des Hôpitaux. Reviewed by the Professor. Translated by W. C. B. FIFIELD, M.D. Boston: James Campbell.

THIS modest little book contains a statistical *résumé* by the author of his surgical experience in the hospital wards under his care during the previous year. We learn that he is accustomed to present a similar summary to his followers every year. The number of patients on which his statements are based is 1155—797 males and 358 females. He treats his subject under the successive headings, Generalities, Fractures, Affections of the Joints, Inflammations and Abscesses, Affections of the Lymphatic System, Burns and Contusions, Affections of the Genito-Urinary Organs, Affections of the Aural Region, Affections of the Eyes, Statistics of Operations.

This little book, of one hundred and three pages, is full of the condensed wisdom and experience of the great surgeon from whose lips it came. As the translator well says in his preface, it contains "the essence of the long life and vast experience of Velpeau—perhaps the last words he may speak to us." We have a special liking for such works, which give us the most authoritative opinions of the elders of the medical profession, who have reached the time when the judgment is least biassed by the rivalries and personal influences which are so apt to mislead younger minds. The one before us shows that the author has a large respect for the agency of the natural forces in surgery, and contains matter of much interest in the light of medical jurisprudence. It is of vastly more value than many more ambitious and bulky works. It is neatly printed on tinted paper.

A Treatise on the Principles and Practice of Medicine; designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in Bellevue Hospital Medical College, and in the Long Island College Hospital, &c. &c. Second Edition, Revised and Enlarged. Philadelphia: Henry C. Lea.

FOUR months after the publication of this work, as we learn from the preface to the present edition, a second was called for. If we knew the size of the first edition, we could judge better of the amount of public approval which this fact indicates. The second edition contains considerable new matter, relating to Pertussis, General Cerebral Paralysis and Polyuria, subjects which were not treated in the first. In addition, the portion treating of Pyæmia has been re-written, Epidemic Cholera has been treated at greater length, and considerable other new matter has been introduced. The present edition confirms our favorable impression of the first. It is handsomely printed.

An Index of Diseases and their Treatment. By THOMAS HAWKES TANNER, M.D., F.L.S., Member of the Royal College of Physicians, &c. Philadelphia: Lindsay & Blakiston. 1867.

THE author's object in preparing this volume was, as he states, to facilitate the work of the busy practitioner, by enabling him in a few moments to run over a condensed synopsis of the principal features of any disease he may be called upon to deal with, together with a summary of the various methods and agents which have been found of the most practical value in their treatment. In fact, it is a sort of medical dictionary. The last hundred pages consist of an Appendix of Formulæ, numbered in accordance with the references distributed throughout the book, concluding with two pretty full chapters on *Climates for Invalids*, with brief notices of a number of the noted places resorted to by this unfortunate class—and *Mineral Waters*, with a particular account of the principal springs, the waters of which are in repute as curative agents. The subjects are arranged in alphabetical order, and the work is well calculated to answer the design of the author.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 31, 1867.

CHEMISTS' CERTIFICATES.

IN calling the attention of our readers, as we have done from time to time, to the dangerous character of many of the articles advertised in newspapers for the cure of diseases, and the reprehensible conduct of the public press in connection with such fraudulent practices, we have hitherto neglected to notice an important element employed in some cases by the manufacturers and agents engaged in this business. Sensible of the distrust with which their productions are regarded by the educated classes of society, they seek to remove all such fears by publishing, with the testimonials of their efficacy, certificates, from parties supposed to be competent and trustworthy, of their harmlessness and purity; and, strange to say, they are too often able to make use of this additional means of deceiving the public.

So little is known of chemistry by the world at large, and so wonderful have been many of its practical results in the arts and in cases of medico-legal celebrity, that its powers are apt to be over-estimated, and the unlimited confidence placed in the science is blindly transferred to all who practise it as an art or business, and call themselves chemists. The possibilities of chemistry, however, even in the matter of simple analysis, are limited, as the merest dabbler in it knows, even if the public does not; and yet if we were to estimate them by the notices emanating from laboratories and published in the newspapers and public places in connection with the vaunted action of all sorts of nostrums, we should be obliged to attribute to them more transcendent powers than the most enthusiastic modern synthesist dreams of. How far in advance of the teachings of the most renown-

ed chemists are the results obtained by those who publish their discoveries under the form of certificates! Orfila, Christison, Taylor, Fresenius, and others acknowledge their inability to detect by any chemical agency the presence of some of the most deadly poisons known, and yet we have before us the published statement of an "analytical chemist," that the chemical analysis of a certain advertised preparation shows that "it is free from opium or any other deleterious substance." But they must go further than this. Not satisfied with the attainment of a knowledge that enables them to determine the absence of all known injurious matter, they can recognize certain positive qualities in this class of substances submitted to them, which chemistry has hitherto not even attempted to embrace in its possibilities. They not only discover their physiological action upon the system, but even the particular pathological condition of the economy which they were created to remedy. We had supposed that these matters were worked out by the patient and united labors of the physiologist, therapist and pathologist, and that the test tube was more limited in its scope; but we find another chemist, in the published report of his analysis of an eye lotion, saying that "its effects are due to the cooling and soothing action of the oils on delicate or inflamed surfaces connected with the eyes"; and yet another speaks thus:—"Its principal effects upon the system are mildly stimulating, diuretic, sudorific and tonic. It will prove beneficial in affections of the kidneys, and chronic diseases, with general debility of the constitution."

Now not one of these persons is a physician, or is competent to speak of the physiological action of drugs; and, moreover, they know enough of chemistry to know that, as chemists, they have nothing to do with such matters, and yet instead of making the proper use of their art to instruct the public as to the true character of many of the substances employed as remedies and lotions, they lend the influence of their names, directly or indirectly, to this system of traffic. One has only to look at the preparations offered for sale in the cases of our fancy-goods apothecaries, or read the advertisements in the newspapers, to convince himself of the dangerous nature of many of them. Arsenical lotion for the skin, antimony for the eyelashes, and belladonna for the eyes, would at once attract the attention of the physician, but who knows the composition of the hundred other cosmetics sold under poetical names—the Lait de Concombre for freckles, the Oriental Rusma to remove the hair, the Sympathetic Blush, the Eau de Tuilleries, the Blanc de Perle, the Bleu pour Veines, the coral lip salve, and so on, which may contain substances equally deleterious. The disclosures of a lady's maid recently published concerning the mysteries of the toilet among English ladies of rank, will show the uses to which some of these articles are put.

"We must be able to paint in pastel, not indeed *after* nature, but *upon* her. To beautify our mistresses we must redden the cheeks, put antimony upon the eyelids, pastel upon the brows, introduce belladonna into the eyes in order to enlarge the pupils, paint blue veins upon the temples, and use ninon paint and pearl white upon the rest of the skin. We must change the hair to a reddish-brown by means of a corroding material, or of 'palma vecchio,' which is now used in preference for that purpose; and we must be possessed of great skill

in applying all these ingredients, as their use is universal with the old as well as with the young."

It is no defence for the chemist, in this and other instances, which might be mentioned, where certificates are given for such or equally injudicious purposes, to urge that he is not accountable for the use which is subsequently made of them. Such a plea of irresponsibility will not be accepted by those who respect chemistry and who fully appreciate the character of such pseudo-scientific labors, and of the parties who use them for such unworthy purposes.

Massachusetts General Hospital.—The following gentlemen, students of medicine, have been appointed House-pupils at the Hospital for the ensuing year. In the Medical Department—Herbert Pratt, William James. In the Surgical Department—Thomas Waterman, Jr., Henry H. A. Beach, Rufus P. Lincoln, Josiah L. Hall.

American Medical Association.—The Transactions of the American Medical Association, Vol. XVII., are published and ready for delivery. Vols. V., VII., VIII., IX., if taken collectively, \$5 for the set; if singly, \$2 apiece. Vols. X., XI., XII., XIII. and XIV., at \$2 apiece. Vol. XV. at \$3; Vols. XVI. and XVII. at \$5. Any gentlemen residing in Boston or vicinity can be supplied at the above rates by sending their orders, before the middle of February, to Dr. J. N. Borland, No. 69 Mt. Vernon Street.

The Source of Muscular Power.—Some very important researches upon this subject have been recently published by Drs. Fick and Wislicenus, Professors at the University of Zurich, and also by Dr. Frankland in London. An account of these experiments was given in a lecture delivered at the Royal Institution by the latter chemist during the last session.

It is probable that these investigations will very materially affect the present condition of physiological science, tending, as they do, to entirely change the idea hitherto entertained respecting the relation of food to the requirements of the animal body.

Twenty years ago, physiologists would have attributed the source of muscular power to something peculiar developed by living animals, and termed *vital force*. The progress of scientific discovery, however, rapidly dissipated the very crude notions which then existed regarding this mysterious agency. We now know that an animal, however high its organization may be, can no more *generate* an amount of force capable of moving a grain of sand than a stone can fall upwards, or a locomotive drive a train without fuel. All that such an animal can do is to liberate that store of force, or *potential energy*, which is locked up in its food. It is the *chemical change* which food suffers in the body of the animal that liberates the previously pent-up forces of that food, which now make their appearance in the form of *actual energy*—as heat and mechanical motion. From food, and food alone, comes the *matter* of which the animal body is built up; and from food alone

come all the different kinds of physical *force* which an animal is capable of manifesting.

The two chief forms of force thus manifested are *heat* and muscular motion, or mechanical work. These have been almost universally traced to two distinct sources—the *heat* to the oxidation of the *food*, and the mechanical work to the oxidation of the *muscles*. This doctrine, first promulgated by Liebig, has been within late years adopted by most physiologists, and has been taught in all the text-books treating of the subject. The proximate constituents of food have been frequently divided into two groups—carbonaceous or non-nitrogenous, such as fat, starch, sugar; and the nitrogenous, such as fibrin, albumen, and casein—the former class being regarded as comprising simple *heat givers*, that is to say, substances that furnish material for oxidation in the process of respiration, and thus maintain the temperature of the body; the nitrogenous constituents being the *flesh formers*, or substances building up the muscles of the body, through which motive force is exerted. The exercise of a muscle being accompanied by a proportionate destruction or oxidation of its tissue, it follows that the plastic or flesh-forming constituents of food should bear a relation to the amount of muscular work performed. This theory, viz., that mechanical work, i. e., muscular exertion, is dependent on the destruction of muscular tissue, has been supported by Ranke, Playfair, Draper, and others; and, as we have already stated, it has been generally taught up to the present time. Nevertheless, it has not escaped challenge. Immediately after its promulgation, Dr. J. R. Mayer wrote, “A muscle is only an apparatus by means of which the transformation of force is effected, *but it is not the material by the chemical change of which the mechanical work is produced.*” This assertion he supported by several cogent arguments. Other physiologists also expressed similar opinions. Messrs. Lawes and Gilbert advocated a like view, basing their opinions on their own elaborate and carefully executed experiments on the feeding of cattle. The experiments of Messrs. Fick and Wislicenus and of Dr. Frankland, to which we have already referred, however, furnish results which are entirely subversive to the doctrine which has hitherto prevailed, and are almost conclusive in favor of the view expressed by Mayer. Messrs. Fick and Wislicenus, during the autumn of last year, undertook the ascent of the Faulhorn, one of the peaks of the Swiss Alps, near the Lake of Brienze, in the Bernese Oberland. This ascent represented a measurable amount of mechanical work, i. e., the raising their own weights from the base to the summit. For some hours before commencing, and during the experiment, they consumed no nitrogenous food whatever. As it has been well ascertained that all the nitrogen passes out of the body in the state of urea, they were enabled, by collecting the urine that passed, to ascertain accurately the quantity of nitrogen excreted, and consequently the amount of muscle oxidized during the journey. It only remained to determine whether the amount of force they exerted during the ascent was greater than could possibly be generated by the quantity of muscle oxidized during the same time. If it was, then it would necessarily follow that the power of the muscles was not derived exclusively from the oxidation of their own substance.

The calorimetrical determination of the actual energy evolved by

the combustion of muscle and of urea in oxygen have been made by Dr. Frankland, and the results show that the amount of muscle destroyed by the former gentlemen during their ascent would not account for one half of the force required to lift them to the summit of the mountain. Taking the average of the two experiments, and making several necessary allowances, Dr. Frankland calculates that scarcely one fifth of the energy required for the work could be obtained from the amount of muscle consumed.

Examining a number of previous experiments of a like kind, Dr. Frankland finds them all confirmatory of the same thing. Thus, he gives a summary of three sets of experiments made by Dr. E. Smith, by the Rev. Dr. Haughton, and by Playfair, in which in each case the force expended is in excess of that derivable from the muscle oxidized.

The following are the conclusions deduced by Dr. Frankland from his experiments :—

“ 1. The muscle is a machine for the conversion of potential energy into mechanical force.

“ 2. The mechanical force of the muscles is derived chiefly, if not entirely, from the oxidation of matters contained in the blood, and not from oxidation of the muscles themselves.

“ 3. In man, the chief materials used for the production of muscular power are non-nitrogenous ; but nitrogenous matters can also be employed for the same purpose, and hence the greatly increased evolution of nitrogen under the influence of a flesh diet, even with no greater muscular exertion.

“ 4. Like every other part of the body, the muscles are constantly being renewed ; but this renewal is not perceptibly more rapid during great muscular activity than during comparative quiescence.

“ 5. After the supply of sufficient albuminized matters in the food of man to provide for necessary renewal of the tissues, the best materials for the production, both of internal and external work, are non-nitrogenous matters, such as oil, fat, sugar, starch, gum, &c.

“ 6. The non-nitrogenous matters of food which find their way into the blood, yield up all their potential energy as actual energy ; the nitrogenous matters, on the other hand, leave the body with a portion (one seventh) of their potential energy unexpended.

“ 7. The transformation of potential energy into muscular power is necessarily accomplished by the production of heat within the body, even when the muscular power is exerted externally. This is, doubtless, the chief and probably the only source of animal heat.—*Druggists' Circular and Chemical Gazette*.

Poisoned Bread at Winona, Ill.—It will be remembered that in July last, at a hotel in Winona, Illinois, a large number of persons were poisoned by eating warm biscuit at breakfast. The case attracted much attention, from the fact, that a few days before, some forty persons were in a similar manner poisoned at a hotel in Indianapolis ; and from the circumstance, that self-raising flour was charged with having produced the poisoning at Winona. The public had not forgotten the bread-poisoning on a large scale in the State of New York, where the metallic lead used to bind the burr-blocks composing the mill-stones had been abraded and mixed with the flour in grinding. The investi-

gation of the Indianapolis case by Professor Wormley, of Ohio, revealed in the sour milk employed, with salætatus, to make the bread light, five and a half grains of tartar emetic and a trace of arsenic, in a single pint. A similar case at Atlanta, Georgia, in which a whole family was poisoned, was traced to arsenic introduced by a servant.

The Winona case was taken up by the physicians and druggists of the place, and prosecuted till they and the victims generally became satisfied that the self-raising flour had nothing to do with the poisoning. The investigation was renewed by Professor Horsford, of Cambridge, Mass., and the results at which he arrived are embodied in the following statement:—

1. That there was substantially no self-raising flour in the batch from which the biscuit were made.

2. That poison was introduced into the biscuit, through the sour milk employed with salætatus, in ordinary flour, to make the biscuit light.

3. That the poison was introduced by design.

4. That the poison was arsenic.—*Medical and Surgical Reporter*.

A Remarkable Solvent.—It is now discovered, it appears, that if a piece of copper be dissolved in ammonia, a solvent will be obtained, not only for lignine, the most important principle of all woody fibre—such as cotton flax, paper, &c.—but also for substances derived from the animal kingdom, such as wool and silk. By the solution of any of these an excellent cement and water-proofer is said to be formed; and, what is equally important, if cotton fabrics be saturated with the solution of wool, they will be enabled to take the dyes—such as the lac dye and cochineal hitherto suited to woollen goods only.—*Exchange*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 26th, 1867.

DEATHS.

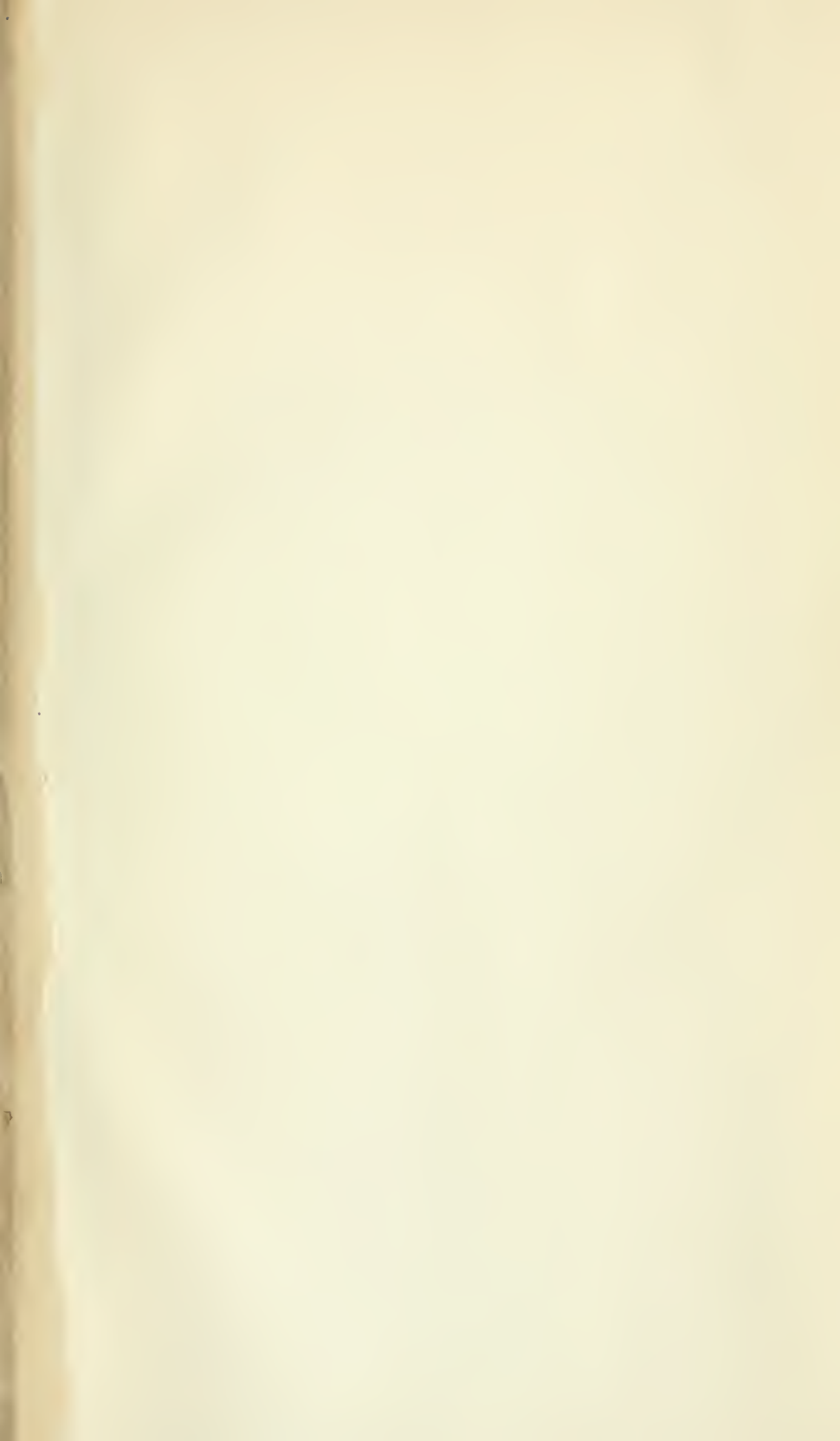
	Males.	Females.	Total.
Deaths during the week	49	46	95
Ave. mortality of corresponding weeks for ten years, 1856—1866	40.2	38.7	78.9
Average corrected to increased population	00	00	86.92
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—Amputation of the Cervix Uteri.—Impotency from Deviation of the Seminal Ducts.—On some of the Means used in the Treatment of Pulmonary Consumption.—Extracts from the Records of the Middlesex (Mass.) East District Medical Society.—Extracts from the Records of the Albany City Hospital.

PAMPHLETS RECEIVED.—Diphtheria: A Prize Essay. By E. S. Gaillard, M.D., Richmond, Va.—Twelfth Annual Report of the Board of Trustees and Officers of the Southern Ohio Lunatic Asylum, for the year 1866.—Relations which Electricity sustains to the Causes of Disease. By S. Littell.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 26th, 95. Males, 49—Females, 46. Accident, 1—anæmia, 1—apoplexy, 2—congestion of the brain, 1—disease of the brain, 2—bronchitis, 4—cancer, 4—cholera morbus, 1—consumption, 12—convulsions, 3—croup, 3—cyanosis, 1—debility, 1—dropsy, 3—dropsy of the brain, 4—dysentery, 1—empyema, 2—erysipelas, 1—scarlet fever, 6—typhoid fever, 4—hemorrhage, 1—disease of the heart, 6—hernia, 1—infantile disease, 4—intemperance, 1—lockjaw, 1—inflammation of the lungs, 6—marasmus, 1—old age, 2—paralysis, 1—puerperal disease, 1—scrofula, 1—smallpox, 2—congestion of the stomach, 1—syphilis, 1—teething, 1—tumor, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 33—between 5 and 20 years, 8—between 20 and 40 years, 25—between 40 and 60 years, 13—above 60 years, 16. Born in the United States, 66—Ireland, 24—other places, 5.



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